

E. HARRISON CAWKER. VOL. 22, No. 3.

MILWAUKEE, JANUARY, 1887.

TERMS: | \$1.00 a Year in Advance

LORD & THOMAS, NEWSPAPER Advertising, 45 to 49 Randolph St., Chicago, keep this paper on file and are authorized to ADVERTISERS.

A. BLOEDEL.

Manufacturing

Jeweler Diamond Setter,

Dealer in

WATCHES, CLOCKS, JEWELRY,

Silver and Plated Ware.

Special Attention Given to Repairing.

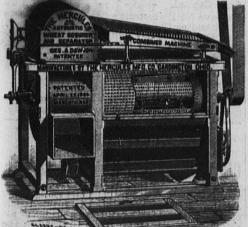
No 106 GRAND AVE...

Cor. West Water St.,

MILWAUKEE, WIS.



YOU WANT



HERCULES

Automatic Wheat Scourer and Separator.

Warranted to improve the COLOR and VALUE of flour in any mill. Anti-Frictional, Light Running and the only AUTOMATIC WHEAT SCOURER ever invented. Adjusts itself while in motion to the volume of wheat fed to it and requires no attention but oiling. Awarded GOLD MEDAL and highest honors at the late WORLD'S FAIR, NEW ORLEANS. Machines sent on 60 days trial and satisfaction guaranteed or no pay. Write for Circulars, Testimonials and Samples of Cleaned Wheat and Scourings.

THE HERCULES MFG. CO., Cardington, Ohio.

IT HAS INCREASED OUR TRIDE.

THE HERCULES MANUFACTURING CO., Cardington, Ohio.

Gentlemen:—We like the "Hercules" machine very much indeed. It has increased our trade, and we will buy another for our other mill in the Spring. It certainly is the best Scourer we know of.

Yours Respectfully, SCHREURS BROS.

[Mention this Paper when you write.]

SCHREURS BROS., PROPRIETORS OF YOUNG AMERICA ROLLER MILLS, Muscatine, Iowa, December 9th, 1885.

PUBLISHED EVERY TWO YEARS.

SENT BY MAIL, REGISTERED AND POST-PAID.

Furnisher, Flour Broker, Transportation Company, Insurance Company,

FLOUR IMPORTER, MERCHANT MILLER,

Or anyone desiring to reach those connected with the PLOUBING INDUSTRY, should order this Book at once.

E. HARRISON CAWKER, NO. 124 GRAND AVENUE,

MILWAUKEE. WIS.

BELLAS, PATTON & CO., Commission Merchants

3 INSURANCE EXCHANGE BLDG..

218 La Salle St.,

CHICAGO.

GRAIN AND PROVISIONS

Bought or sold for shipment, or carried on margins. Market Reports furnished to correspondents.

(ESTABLISHED 1855.)

J. O. Mathewson & Co.,

GENERAL

MERCHANTS.

AUGUSTA, - GEORGIA.

E. B. OWENS & CO..

Provisions and

BALTIMORE, MD.

Sell on Track West and to Arrive. Pine Storage Cellars for Meat and Lard. Handle all kinds of Grain, Liberal Advances on Consignments.

REFER TO Western National Bank, Baltimore; Citi-zens' National Bank, Baltimore; Wm. Hyan & Sons, Dubuque, Iowa; Whitmore Bros., Quincy, Ill.; Bloomington Pork Packing Co., Bloomington, Ill.

EVERINGHAM & CO.

ommission Merchants

200-201 Royal Insurance Building, CHICAGO
Opposite New Board of Trade, CHICAGO

THE PURCHASE AND SALE OF

GRAIN AND PROVISIONS On the Chicago Board of Trade.

For eash or future delivery, a specialty.

Special information, indicating course of markets, freely furnished upon request.

WM GRIFFITHS. JAMES MARSHALL. GEO. E. DODGE

GRIFFITHS, MARSHALL & CO., Grain · Commission

MINNEAPOLIS AND DULUTH, MINN.

Orders for Choice Milling Wheat Given Special Attention.

MILLERS DESIRING TO SELL FLOURS BY SAM-M ple in car lots in the cities of Baltimore, Md., or Washington, D. C., should communicate with P. H. HILL, Millers' Agent, WASHINGTON, D. C., and for Philadelphia, Pa., communicate with HILL & SCHAAF, Millers' Agents and Grain Brokers, 219
North Broad St., PHILADELPHIA, PA. Highest references.

SAM'L E. DUNHAM & CO...

COMMISSION

ROOM 83

Board of Trade, CHICAGO.

The purchase of grain for shipment to home markets a specialty.

N. S. CLARK.

A. C. MARTIN.

GLARK & MARTIN.

Commission

FLOUR, GRAIN,

FEED AND HAY,

No. 81 West Second St., Cincinnati. O.

PATTERSON BROS. & CO.,

WHEAT, CORN, OATS, RYE. DEALERS IN

Seeds, Hominy, Grits, Steam Dried Corn Meal. 44 VINE ST., CINCINNATI.

ORDERS AND CONSIGNMENTS SOLICITED.

ESTABLISHED

JNO. R. TURRENTINE.

-GENERAL-

Merchandise and Produce Broker,

FLOUR, GRAIN, HAY AND RICE.

Dock Street,

WILMINGTON, N. C.

MEMBER OF CHICAGO BOARD OF TRADE.

Reters by permission to A. K. Walker, Esq., cashier First Nat'l Bank, Hall & Pearsall, Adrian & Vollers, Merchants, Wilmington; Robt. Carey & Co., New Or-leans, La.; Geo. P. Plant & Co., St. Louis, Mo.; Martin & Bennett, Chicago, Ill.

Solicits Orders for Carolina Rice and Peanuts.

OWEN & BRO. Commission • Merchants,

36 Chamber of Commerce, MILWAUKEE.

We give special attention to the purchase and sale of grain or provisions, for future delivery, here or in other markets.

Information regarding the present condition and future outlook for prices furnished on request.

OWEN & BRO.

S. S. STOUT.

H. G. UNDERWOOD.

STOUT & UNDERWOOD,

(Formerly Examiners U. S. Patent Office.)

SOLICITORS OF

66 Wisconsin Street.

MILWAUKEE, WIS.

Life Insurance. NEW ENGLAND MUTUAL

LIFE INSURANCE CO.

OF BOSTON

Assets, \$17,846,546.65 Liabilities. \$15,288,761.16

Total Surplus, - - - \$ 2,607,785.49

BENJ. F. STEVENS, Pres't. JOSEPH M. GIBBENS, Sec'y.

BOILER INSURANCE.

Steam Boiler Insurance Company

OFFICE, 45 WILLIAM ST., NEW YORK.

Cash Capital, \$200,000

ASSETS JANUARY 187, 1885.

U. S. Gov. Registered Bonds, of which \$100,000 is lodged with the Insurance Department at Albany, N. Y. \$216,138.00

Cash in bank and in office 10,668.72

Premiums in course of collection 16,839.35

\$243,694.33 LIABILITIES. 40,225.00 2,013.27

\$ 43,149.24 WILLIAM K. LOTHROP, President.
WILLIAM E. MIDGLEY, Vice-Pres.
VINCENT R. SCHENCK, Secretary.

Fire insurance.

Every miller and manufacturer having an A 1 risk, should apply for insurance in the Allied Mutual Fire Insurance Companies, of which S. H. Seamans, Milwaukee, Wis., is secretary.

NEC

FIRE INSURANCE CO., HARTFORD, CONNECTICUT.

Cash Capital, \$1,000,000 00 580,669 40 90,396 57 Reserve for Reinsurance, Outstanding Claims, -Net Surplus, 303,683 78

Total Assets, Jan. 1, 1886, \$1,974,749 75 \$1,303,683 78 Surplus to Policy-holders,

J. D. BROWNE, President, CHARLES R. BURT, Secretary. L. W. CLARKE, Ass't Secretary.

CUSTOM and EXCHANGE MILLERS.

We have made arrangements with Potter & Huntington, whereby we can furnish one of their Exchange Tables and Uni^TED STATES MILLER for one year, for \$1.50; the price of the Exchange Table alone is \$1.00. This is probably the best Table ever prepared for Millers doing an Exchange or Custom Business. The range is from 25 to 36 lbs. of flour to each 60 lbs. of wheat, and corresponding amount of bran and middlings. (Toll and waste in milling deducted.) There are twelve Tables each of a different grade of wheat, and each Table a different amount of flour and feed and can be used for any amount of wheat, from two lbs. up to any No. of bushels. There is no guess work about it. but all from actual experienc. By it the Miller is always sure of his allowance of Toll. Hundreds of them are being sent to all parts of the United States and Canada. Send us One Dollar and Fifty Cents and we will send the Table and credit you for one years' subscription to the UNITED STATES MILLER. Address, UNITED STATES MILLER, 124 Grand Avenue, Milwaukee, Wis. We have made arrangements with Potter



The "HOPEWELL" TURBINE

For full particulars address

A. J. HOPEWELL.

EDINBURG, VA.

Improved + Walsh + Double + Turbine



This wheel has a perfect fitting cylinder gate and draft tube combined, and allows no water to escape when closed.

POWER GUARANTEED

equal to any wheel on the market using equal amount of water. Address for par-ticulars,

B. H. & J. SANFORD.

Phonix Iron Works,

Sheboygan Falls, Wis.

Preserve your Copies of the UNITED STATES MILLER

ULLRICH BINI

This binder is suitable for binding your copies of the UNITED STATES MILLER for two or more years, any required number can be taken out without disturbing its contents. Binders made for all Publications, for binding Music, etc.

ITS EQUAL CANNOT BE FOUND.

Send post paid for \$1.10. Address

UNITED * STATES * MILLER,

Flint Pere Marquette R. R.

LUDINGTON ROUTE.

Fast Freight & Passenger Line.

Freight Contracted on through Bills Lading to all points in

Michigan, Indiana, Ohio,

New York, Pennsylvania,

New England & Canada, AT LOWEST RATES.

All freight insured across Lake Michigan. Passengers save \$2.75 to all points East.

Dock and Offices, No. 50 West Water St. one block from Union Depot.

L. C. WHITNEY,

Machine for Flour Mills,

For the Dominion of Canada. ADDRESS,

W. K., Post Office Box 30, Young America



JAMES LEFFEL'S IMPROVED WATER WHEEL,

Pine New Pamphlet for 1885.

The "OLD RELIABLE" with Improvements, making it the Most Perfect Turbine now in use, comprising the Largest and the Smallest Wheels, under both the Highest and Lowest Heads in this country. Our new Pocket Wheel Book sent free. Address,

JAMES LEFFEL & CO., Springfield, Ohio, and 110 Liberty St., New York City.

[Please mention this paper when you write to us.]



POOLE & HUNT'S Leffel Turbine Water Wheel

Made of best material and in best style of workmanship.

Machine Molded Mill Gearing

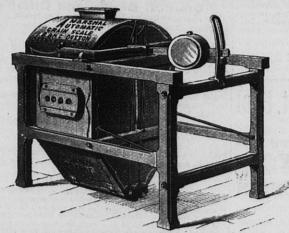
From 1 to 20 feet diameter, of any desired face or pitch, molded by our own spe-CIAL MACHINERY. Shafting, Pulleys, and Hangers, of the latest and most improved designs.

Mixers and General Outfit for Fertilizer Works. Shipping Facilities the Best in all Directions

POOLE & HUNT, Baltimore, Md. N. B.—Special attention given to Heavy Gearing for Pulp and Paper Mills.

[Mention this paper when you write to us.]

Marshall Automatic Grain Scale



FLOUR MILLS.

BREWERIES

Malt Houses,

ELEVATORS.

Distilleries, * Rice * Mills.

OIL MILLS.

Starch Factories, &c.

This Scale is designed for weighing and registering the amount of grain transferred from one point to another. The weighing and recording is absolutely correct, and the machines are sold with a guarantee to that effect. By their usethe miller can tell at any time how much wheat he is using to make a barrel of flour, and know at once whether he is milling at a profit or loss. This scale can be used with equal advantage by shippers of grain or others who desire to know how much grain, flour feed, bran, shorts, screenings, coal (or any other thing that can be spouted), is being transferred, with a perfect record made of same.

J. B. & H. C. DUTTON, Detroit, Mich.

JACKSON, MICH., Nov. 13, 1885.

Gentlemen: We have used the Marshall Automatic Grain Scale in our mill for six months, and it has proved entirely satisfactory.

Yours truly, ELDRED MILLING CO.

No. 52 WOODWARD AVE.

SOLE OWNERS OF THE PATENT.

[Please mention this paper when you write to us.]

Also handle a full line of Flouring Mill Machinery.



WILL CURE any case of Blind, Bleed-

practice, \$2.50.]

Dr. Williams' Indian Pile Ointment
is sold by all Druggists, or mailed on

Williams Mfg Co., Cleveland, O.

CAPACITY 2000 BUSHELS PER DAY. Shells wet or dry corn.

CHEAPEST AND BEST SHELLER. PAIGE MANUF'S CO.. No. 12 Fourth St., Painesville,

[Please mention this paper when you write to us.]

"TRIUMPH" CORN SHELLER

GOODRICH

Milwaukee & Chicago.

Fare to Chicago \$1 less than by railroad.

Chicago and Racine Line.

Leave Milwaukee.	FOR	Arrive at Milwaukee.			
7:00 P. M	Chicago	5:00 P. M.			
7:00 P. M	.Racine	5:00 Р- М			

Fare to Chicago Only \$2.

Round Trips, \$3.50, meals and berths included on first-class tickets.

Sure connections at Chicago with all morning trains for all points East, South and Southwest.

Sheboygan & Manitowoo Line.

Daily.* Leave. Milwaukee 4:00 p. m.

Manistee & Ludington Line. Daily, leave 7 P. M., except Sunday.

Saginaw & Bay City Line, Daily except Sundays.

Milwaukee.....*7:00 p. m. At Milwaukee.6:00 a. m. Making close connections at Ludington with F & P. M. R. R. for Saginaw, Bay City, Detroit, and all points in Northern Michigan and all points East.

Pierport & Frankfort Line.

Leave Milwaukee daily at 7:00 P. M., except Sunday. Kewaunee & Ahnapee Line.

Leave Milwaukee Tuesdays, Thursdays and Saturdays, at 7 A. M.

Menominee & Sturgeon Bay Line. Tuesdays, Thursdays and Saturdays at 7 A. M. Green Bay & Escanaba Line.

Leave Milwaukee Tuesdays, Thursdays and Sat-urdays at 7 A M., touching at Occonto, Menominee, Nahma, Fayette, Depere, and making close connec-tions with railroad at Escanaba for Negaunee, Ish-peming, Quinnesec, Norway, and all Lake Superior

points. *Mondays. +Sundays.

G. HURSON, Secretary and Agent. THOS. FORBES, Passenger Agent.

Green Bay, Winona & St. Paul

RAILROAD IS THE SHORTEST ROUTE FROM

GREEN BAY

and all points in

EASTERN * WISCONSIN

NEW LONDON,
STEVENS POINT,
GRAND RAPIDS,
WAUSAU,
MERRILL,
WINONA,
LA CROSSE,
CHIPPEWA FALLS,
STILLWATER,
HUDSON,
EAU CLAIRE.
VEAPOLIS

-*ST. PAUL, MINNEAPOLIS, #-

and all points in MINNESOTA, DAKOTA,

and all points on the

NORTHERN PACIFIC RAILROAD and ST. PAUL,
MINNEAPOLIS & MANITOBA RAILROAD.

Passengers from all points on the CHICAGO & NORTHWESTERN R'Y, south of Green Bay and Fort Howard, connect with the

G. B., W. & St. P. R. R. -AT-

FORT HOWARD JUNCTION They will find it

THE SHORT LINE to all the above points.

THE PASSENGER EQUIPMENT

of this Road embraces all the modern improvements and conveniences that tend to make traveling by rail safe and comfortable.

Be sure your tickets read via the

Green Bay, Winona & St. Paul Railroad. S. W. CHAMPION, GAVIN CAMPBELL,

General Pass. Agent. General Manager. GREEN BAY, WIS.

Detroit, Grand Haven & Milwaukee RAILWAY LINE.

The Shortest, Cheapest and Quickest Route -BETWEEN THE-

EST @ EA

New York, Boston, and all points in Northern and Eastern Michigan.

COMMENCING MAY 17th,

the Palace Side wheel Passenger Steamer "City of Milwaukee," will leave Milwaukee daily, Sundays included, at 11:45 noon and connect at Grand Haven with Limited Express Train which leaves at 6:00 P. M. Time, Milwaukee to New York, 32 hours.

Ticket Office, 99 Wisconsin Street,

SLEEPING CAR BERTHS

can be secured. Dock, foot of West Water Street.

GEORGE B. REEVES, B. C. MEDDAUGH,

West. Pass. Agt. Traffic Manager, Milwaukee. Chicago.

W. J. SPICER, Gen'l Manager, Detroit, Mich.

THE CHICAGO AND ESTERN

THE BEST ROUTE AND SHORT LINE BETWEEN

Milwaukee, Chicago, Council Bluffs, and Omaha.

The only line to take from Chicago or Milwaukee to Freeport. Clinton, Cedar Rapids, Marshalltown, Des Moines, Sloux City, Council Bluffs, Omaha and all points West. It is also the

SHORT LINE

BETURE LINE.

MINNEAPOLIS, and the best route to Madison, La Crosse, Ashland, Duluth, Winona, Huron, Aberdeen, Pierre and all points in the Northwest.

It is the direct route to Oshkosh, Fond du Lac, Green Bay, Ishpeming, Marquette and the mining regions of Lake Superior.

It is the LAKE SHORE and PARLOR CAR ROUTE between

between
CHICAGO and MILWAUKEE,
PALACE SLEEPING CARS on night trains.
PALATIAL DINING CARS on through trains between

PALATIAL DINING CARS on through trains between
Chicago and Milwaukee,
Chicago and St. Paul,
Chicago and Council Bluffs,
And Chicago and Winona.
If you aregoing to Denver, Ogden, Sacramento, San
Francisco, Helena, Portland, or any point in the West
or Northwest, ask the ticket agent for tickets via the
"NORTHWESTERN" if you wish the best accommodations. All ticket agents sell tickets via this line.

M. MUGLIEFT
R. S. HAIR.

M. HUGHITT, R. S. HAIR, General Manager. Gen'l Passenger Agent CHICAGO.

Milwaukee Office. 102 Wisconsin St.

Milwaukee & Northern Railroad.

THE OLD RELIABLE ROUTE.

17 Miles the Shortest Line

GREEN BAY,

ort Howard, Depere, Menashs Neenah, and Appleton. Marinette, Wis., and Menominee, Mich. Fort Howard,

——THE NEW ROUTE TO—
New London, Grand Rapids, and all points in CENTRAL AND NORTHERN WISCONSIN.

The new line to Menominee is now completed, and opens to the public the shortest and best route to all points on the Michigan Peninsuia.

CONNECTIONS.

CONNECTIONS.

AT PLYMOUTH with the Shetovyan and Fond du Lac Division Chicago & North-Western R'y for Sheboygan and Fond du Lac.

AT FOREST JUNCTION with Milwaukee, Lake Shore and Western Railway.

AT GREEN BAY with Chicago & North Western and Green Bay, Winona & St. Paul Railroads, for all points North and West.

C F. DUTTON, General Supt.



The Milwaukee, Lake Shore & Western Railway has been well named the Fishing and Hunting Line of Wisconsin. passing, as it does, through thousands of acres of but partially explored woods and within easy reaching distance of lakes and streams that have never been fished by white men, all well stocked with the game fish for which Northern Wisconsin waters are noted. The woods abound with game; deer, bear, wolf, mink, beaver, pheasant, and other game are quite plentiful.

THE ONLY LINE

From Milwaukee to the new Iron Mining District in Wisconsin and Michigan—Gogebic, Wakefield, Bessemer, Ironwood and Hurley.

Direct line to ASHLAND and beyond.
Sleeping cars between ASHLAND and CHICAGO. The GUIDE BOOK, and other descriptive matter. containing full information, maps and engravings of the country traversed by the line, will be sent on application to the General Passenger Agent. CHAS. A. COLE, Gen. Agent, 105 Washington St., Chicago.

Chicago Depot. Cor. Wells and Kinzie Sts., (C. &

Chicago Depot, Cor. Wells and Kinzie Sts., (C. & N. W. R'y.)

H. F. WHITCOMB, Gen'l Manager.

Gen'l Pass. Agent.

MILWAUKEE, WIS.

This space will be occupied by an advertisement of the

WISCONSIN CENTRAL LINE,

the recognized Popular Route between Chicago and St. Paul and Minneapolis.



Owns and operates nearly 5,500 miles of thoroughly equipped road in Illinois, Wisconsin, Iowa, Missouri, Minnesota and Dakota.

It is the Best Direct Route between all principal points in the Northwest, Southwest and Far West.

For maps, time tables, rates of passage and freight, etc., apply to the nearest station agent of the Chi-CAGO, MILWAUKEE & ST. PAUL RAILWAY, or to any Railroad Agent anywhere in the World.

R. MILLER, General Manager.

A. V. H. CARPENTER, Gen'l Pass. and Tkt. Agt.

J. F. TUCKER, Ass't Gen'l Manager.

Ass't Gen'l Pass, and Tkt. Agt.

MILWAUKEE, WISCONSIN.

For notices in reference to Special Excursions, changes of time, and other items of interest in connection with the CHICAGO, MILWAUKEE & ST. PAUL RAILWAY, please refer to the local columns of this paper.

UNITED STATES MILLER.

E. HARRISON CAWKER, EDITOR.

PUBLISHED MONTHLY.

OFFICE, No. 124 GRAND AVENUE, MILWAUKEE. SUBSCRIPTION PRICE-PER YEAR, IN ADVANCE.

To American subscribers, postage prepaid...\$1.40
To Canadian subscribers, postage prepaid....1.00
Foreign subscriptions...1.25
All Drafts and Post-Office Money Orders must be made payable to E. Harrison Cawker.
Bills for advertising will be sent monthly, unless otherwise agreed upon.
For estimates for advertising, address the United States MILLER.

[Entered at the Post Office at Milwaukee, Wis., as mail matter of the second-class.]

MILWAUKEE, JANUARY, 1887.

We respectfully request our readers when they write to persons or firms advertising in this paper, to mention that their advertisement was seen in the UNITED STATES MILLER. You will thereby oblige not only this paper, but the advertisers.

MILWAUKEE AMUSEMENTS.

ACADEMY OF MUSIC— Performances every evening, Wednesday, Saturday and Sunday matinees.

GRAND OPERA HOUSE.—Performances every evening, and Wednesday, Saturday and Sunday matinees. DIME MUSEUM-Performances every hour from I P. M. to 10 P. M. every day.

PALACE THEATRE - Every evening, Wednesday, Saturday and Sunday Matinees.

START THEATRE— (German)—Wednesday, Friday and Sunday evenings.

CHICAGO trade for 1886 is placed at \$997,-000 000.

THE total fire loss in the United States and and Canada, for the year 1886 is placed at 116,600,000. It is fearful to contemplate.

M. Jossi of Antwerp, Belgium, has invented an apparatus for the aeration of cargoes of grain by means of compressed air. The new system is not expensive, and is readily applied.

A CONSIDERABLE demand for California wheat from Peru has arisen, for the reason that Peru has closed her ports against Chili, on account of cholera.

PROMINENT grain dealers of New York, Philadelphia, Baltimere and Chicago are making arrangements to form an association for the purpose of carrying their own insurance on grain in registered warehouses.

MESSRS. G. W. BROWN & SONS, of Beecher City, Ill., writes us as follows: "We desire a good miller to erect or assist (say half) in erecting a flour mill in our village. This we consider as good a location as any in central Illinois. Our citizens are willing to help an enterprise of this kind liberally.

Custom and Exchange millers will consult their interests by reading the advertisement concerning "Exchange Tables" on another page.

THE annual report of the Millers' National Insurance Co. of Chicago, Ill., has recently been issued. It shows a surplus over all liabilities of \$1,122,904.71. This includes \$935,984.29 of deposit notes subject to assessment. The The total losses paid since organization in 1876 amount to \$632,601.44. Col. W. L. Barnum is secretary of the Company, and his address is No. 205 La Salle st., Chicago, Ill.

THE almanac for 1887 gives a few items of general interest. New Year's Day came on Saturday, Washington's Birthday comes on Tuesday, St. Valentine's Day on Monday April-Fool Day on Friday, Memorial Day on Monday, Fourth of July on Monday, Christmas on Sunday; Easter Sunday will be on the 10th of April; Lent begins March 2. There will be four eclipses—two of the sun and two of the moon; one (Feb. 8,) visible as a partial eclipse in the United States. The others that occur, as follows, are not visible in the United States: The annular eclipse of the sun, Feb. 23; Aug. 19, of the sun.

OPERATIVE millers desiring a thoroughly practical work on milling can do no better than to purchase "Gibson's Gradual Reduction Milling." Price \$3 or with the UNITED STATES MILLER one year, \$3.50.

ABOUT 8 o'clock, in the evening of Jan. 6, a fire broke out in the foundry department of the Reliance Works of Edw. P. Allis & Co. Damage is estimated to amount to about \$50,000. Fully insured. Quite a number of men will be thrown out of employment for about two months, in which time it is expected that a new foundry will be built. The firm sends a large number of their men to Pullman, Ill., where they have made arrangements to do their work until the completion of the new shops. There will be little delay in filling orders.

It is reported that a young man traveling for Edw. P. Allis & Co., has recently swindled the firm out of \$1,900 and left for parts unknown.

THE American Machinist says: A machinery dealer sold an engine and boiler to a party in Georgia under an agreement reserving title and ownership in the seller until the whole purchase price should be paid. This was supposed to be a very safe transaction, but as the property was destroyed by fire, and as the Supreme Court of Georgia has decided that in the absence of negligence on the part of the buyer the risk was wholly that of the seller, that machinery dealer has lost faith in the security of such contracts.

For \$1.80 we will send to any address in the United States or Canada post-paid, the New York World (weekly), THE UNITED STATES MILLER (monthly) and the History of the United States, a handsome volume of 320 pages bound in leatherette tree calf and containing 22 engravings.

MUTUAL INSURANCE COMPANIES DO SOME-TIMES FAIL

The announcement is made by the Standard of Boston, that the Spinners' Mutual Fire Insurance Company, of that city, of which Edward Atkinson is president, has gone into voluntary liquidation. The reason of this is understood to be the loss of \$28,000 on the Indian Orchard Mill, which was lately burned, and a bad run of losses in general business.— Spectator.

This is certainly a great surprise to many total losses for the year 1886 were \$88,926.21. underwriters and others who felt that such a Foreign Country for £1.38.

thing as failure was hardly possible with any of the New England Mill Mutuals. Not only had the system been regarded as affording substantial protection, but it had been looked upon as a system affording insurance far below any rates that could be safely named by any stock companies. The Spectator says that the Spinners' Mutual was represented from the first to be a gilt-edged company, and if it could not make a success, it will be astonishing if some of the other mutuals do not speedily follow its example and close up their busi-

ROBERT GRIMSHAW'S new work, entitled "The Pump Catechism" is just out. Price \$1.00. The work is a practical help to runners, owners and makers of pumps of any kind. It covers the theory and practice of designing, constructing, erecting, connecting and adjusting pumps. The work can be ordered from the UNITED STATES MILLER.

WE have received from Mr. Bruno Kniffler, representing the Moritz Martin patent, No. 211,033, a copy of the decree of the U.S. Circuit Court for the Eastern Dist. of Michigan, in the case of Moritz Martin, complainant, vs. The Geo. T. Smith Middlings Purifier Co., impleaded with A. H. Kirk, W. H. Fender and Sam. L. Bean, defendants, which decrees the complainant a proportionate share of the royalties paid to the Smith Co., by the Milwaukee Dust Collector Co., for license to manufacture dust collectors under nineteen different patents, including No. 211,033. amount of such royalties to be paid over to complainant was referred to Wm. J. Wells of Detroit, Mich., as Special Commissioner of the Court for determination.

BUREAU REPORTS.

In commenting on the recent action of our Chamber of Commerce, the N. Y. Commercial Bulletin says: "The Milwaukee Chamber of Commerce has taken a stand against the publication of monthly reports by the National Bureau of Agriculture, on the off-hand assumption that such a publication subserves no useful purpose to the agricultural and com. mercial interests, and enables foreign customers to establish values for our crops, in advance of the harvest, often less than the actual out-turn would warrant. The National Board of Trade accordingly is to be petitioned to use its influence with a view of suppressing these reports. We doubt if the National Board will do any such thing. The Bureau Reports unquestionably are susceptible of improvement in more ways than one, but as they stand, they are infinitely better than nothing, and it is preposterous to allege that they 'subserve no useful purpose to the agricultural and commercial interests.' It may well be asked, where would the commercial and agricultural interests be without them? Simply at the mercy of whatever reports and estimates it might suit the professional speculators to put forth."

We will send the United States Miller, The American Miller, and The Northwestern Miller, (weekly), and The Milling World, weekly), for one year, to any address in the United States or Canada for \$4.00, or to any

DULUTH ITEM8.

DULUTH is to have an elegant union depot built during 1887. The building will be owned and operated by a joint stock com-

A LARGE number of men are at work clearing the right of way on the Duluth short line between Oneonta and Thomson.

THERE is a great deal of interest manifested in elevator building, and it is estimated now that not less than 10,000,000 bushels of storage capacity will be added during 1887, and prominent railway officials and shippers and receivers claim that it will all be needed. President Fisher, of the St. Paul & Duluth road, says that his road would have brought from 8,000,000 to 10,000,000 bushels more wheat here this winter if there had been sufficient elevator room, while the Omaha road has been prevented from bringing here 1,500,000 bushels of corn. The receipts of wheat here since last January have amounted to 22,550,-000 bushels for the year, while shipments were 16,764.192 bushels. The gain in receipts over last year is 6,725,000 bushels, and in shipments 3,000,000 bushels, Had Duluth had sufficient elevator capacity, her receipts would have been larger than those at Minneapolis, which leads this year by about 8 000,-000 bushels.

WHEAT thieves have been bothering grain receivers for some time. It is estimated that over twenty cars of wheat have been stolen during the past few months. Efforts are being made to put a stop to it.

A NEW bank to be called the Union National Bank of Duluth is soon to be opened in Duluth. The authorized capital is \$2,000,-000 and paid up capital \$500,000. A new private bank with a capital of \$200,000 will soon start business.

THE NEW DULUTH EXCHANGE WAS formally opened on the afternoon of January 3. In concluding the opening address President Beneteau said:

"In conclusion, gentlemen, I might say that the Duluth Produce Exchange offers special inducements to operators in almost every line of business peculiar to our location, including transportation and insurance."

Mayor Sutphin, Hon. H S. Colfax, late of Colfax, Dak., Col. Lucien J. Barnes, Secretary of the Exchange, and others made eloquent and instructive speeches. We cannot resist making the following brief extract from the speech of Col. Barnes.

Our shipments of flour increased from 155,000 barrels for 1885, to 1,350,000 barrels for 1886.

Our receipts of wheat for the year 1886 were 22,672,000 bushels, as against 15,000,000 for 1885.

It will be observed that our receipts and shipments of wheat for the past year exceeded those of Chicago by several million ceeded those of Chicago by several million bushels, and our wheat was not only of a better quality, but it was clean before it was received or admitted to storage in the elevators of our city. The storage capacity of our elevators is now 11,500,000 bushels, and with the completion during the present season of four new elevators, we shall be in condition to furnish storage room for 15,000,000 bushels.

Our elevators now contain about 10,000,000

Our elevators now contain about 10,000,000 bushels, as compared with 5,000,000 bushels at the close of 1885. We received by lake during 1886, 700,000 tons of coal, as compared

facilities, while the early future promises greater activity in the line of railroad building in the section of country tributary to Duluth than has been witnessed at any time in our past history.

Not many years ago, our city was of so little importance, that even its location was totally unknown to the great and wise men in Congress who listened with rapturous delight to the sarcastic description by the member from the Kentucky blue grass region, who has since climbed into the gibernatorial chair, of the imaginary commercial greatness then hovering over the devoted heads of the few pioneers and cruisers who had penetrated to these unknown and frozen regions of the to these unknown and frozen regions of the north. Now twenty-eight passenger trains arrive at and depart from our city. All honor to the pioneers and early settlers of Duluth for their sagacity in selecting the site laid out by nature as combining advantages not possessed by any other city upon the great chain of lakes. All honor to that distinguished financier, Jay Cooke, of Philadelphia, whose name will ever be gratefully remembered by his loyal fellow countryment for his eminent services to the government. for his eminent services to the government during the dark days of the war for the union, and who secured the construction of the Northern Pacific railroad from Duluth to the fertile valleys and boundless prairies of

All honor to the firm of Carrington & Casey merchants, who rose from their primitive and miniature commercial transactions at the little town of Middlebury, to their present position in the world of business, and whose wealth and good judgment located and completed the first elevators built in our city, which have contributed so greatly to the growth and prosperity of Duluth.

All honor to those who opened up the canal which connects our peerless harbor with the waters of the great lake.

All honor to George C. Stone and his associates for the discovery and development of

ciates, for the discovery and development of the great field of wealth, hidden but a short distance below the surface of the earth, along the Vermillion range.

Honor to those who maintained their allegiance to Duluth, through good report and through evil report, through the crisis in her history until they can to-day witness her on the high road to a growth and prosperity which is to be astonishingly great, brilliant

and permanent As an indication of this, permit me to refer to the activity which has characterized real estate transactions at this point during the past twelve months. It appears from the records of the register's office that there have been over 2,000 transfers recorded during that period, covering a valuation of \$5,000,000. In the accomplishment of this result the real estate agents operating here at the beginning of the year, have been largely assisted by others coming from various points in Dekota and elsewhere who now seem do assisted by others could from various points in Dakota and elsewhere, who now seem determined to capture their share of business on the floor of this exchange. We welcome them as valuable additions to our organizations. tion. Henceforth, let every stranger visiting Duluth find his way to the Produce Exchange rooms, and he need not depart therefrom without a feeling of relief as well as of satisfaction.

The rate of taxation for all purposes, has been fixed for the present year upon Duluth property at 22 2 mills, the assessed valuation being about \$12,000,000.

Our public and private schools and churches are in a flourishing and prosperous condition. We have just erected a handsome high school building at a cost of \$20,000, and an equal amount has been expended during the past year for the erection and improvement of other buildings and grounds.

In these few remarks hastily prepared, I have purposely refrained from indulging excessively in statistics, and refer you to the annual reports of our newspapers and of our various commercial organizations for more complete and detailed information.

with 600,000 tons during 1885.

The value of new buildings erected in addition thereto the railroads terminating here paid out \$1,000,000 for new docks, flour sheds, depots, side tracks and other terminal

INDIAN US. AMERICAN WHEAT.

There seems to be an idea prevalent that India can so successfully compete with America in the matter of wheat growing that the latter country will, ere long, be beaten out of the field, on the score of cheapness of production. This idea has probably been brought about by the fact that within the last seven years the Indian wheat exports have risen from one to five-and-a-half million quarters, which latter figure is about the total likely to be reached in the present calendar year; and also by the fact that the present low prices of wheat are considered to have been mainly caused by this increase in Indian wheat supplies. We do not share this latter opinion, but consider that present low prices have been brought about by over-production alone, in which the Indian supplies have played one of the least important parts. It may at first sight be granted that as the native Indian wheat cultivator works for something like 2d a day, the Indian farmer starts with a great advantage over his American rival. It has also been endeavored to be demonstrated by figures that 30s per quarter is the minimum average price at which Indian wheat can be laid down in London, whilst American wheat cannot be grown profitably for less than 32s 6d, if it can for that, which there is reason to doubt. On this point it may be argued that if the present value of the Indian rupee were not exceptionally low (1s 5fd) the Indian farmer would not be able to grow wheat at the above price; and it is open to believe that the present abnormally low value of silver will not always be maintained, indeed it has already risen 10 per cent. from the lowest point this year. Indian wheat, moreover. largely as it has grown in consumption of late years, could not be expected to entirely supplant other varieties; for instance, if a British or Continental miller were to make his flour wholly from Indian wheat, he would find it unsaleable, in other words, Indian wheat cannot stand alone as a flour making grain for European tastes, therefore there would always be a limit beyond which the supply of India could not profitably grow, whilst almost every other quality of wheat would stand alone if no other sort of wheat were forthcoming. There is, moreover, considerable vagueness about the home requirements of India; we know approximately that India grows 35 million quarters of wheat in a good season; we know, too, that a larger quantity than five million quarters has never yet been exported in one year, and that, nevertheless, there is no accumulation of old wheat; on the contrary, we are told that the natives, who used to store the whole of the surplus of one or even two harvests, in pits, are now complaining of the emptiness of these pits. This, therefore, would seem to dispose of the notion that ten years ago India only produced fifteen to twenty million quarters. A country like India, with its lack of transport facilities and absence of modern machinery, and its primitive method of growing wheat, is not likely to have more than doubled its growth of wheat in a single decade; on the contrary, the growth of the cultivation of wheat under present conditions in India must of necessity be slow. America, on the other hand, grows on its present acreage, in fairly good years more than sixty million quarters, against less than forty million quarters ten years ago, and has exported in one year within the

decade nearly twenty-five million quarters, and might possibly have an equal amount to spare next season if the crop yields well Thus it would appear that India's capacity to export is at a maximum six million quarters, and that this maximum has been reached within the last two years, so that for the present, at least, there is not much prospect of America being beaten out of the field as a wheat grower by India .- Millers' Gazette (London, Nov. 1).

FROM BRADSTREETS.

CHICAGO AS A GRAIN MART.-The fact that receipts of wheat at Chicago this season have declined, and that what it has lost in this direction has been gained largely by Minneapolis and Duluth, has stirred up newspapers as well as members of the grain trade in the northwest. It is noted, too, that the chief grain inspectors at Chicago and a committee of the Chicago Board of Trade have been examining the methods of handling grain at the northwestern cities named, presumably with the intention of improving their own when they get home again. It is alleged that Chicago has thus far graded wheat which was not quite clean, quite low, against the merits of the grain, and that from this practice the opportunity to buy good wheat cheap and clean it (say at Milwaukee, after paying extra carriage) has given rise to a regular business in that line at the cost of consignors. Meanwhile the practice is working its own cure, and Chicago is surprised to realize that Minneapolis, St. Paul and Duluth grade wheat subject to cleaning, that the elevators are all fitted with cleaning apparatus and that a state weighing law are among a few reasons why Chicago's long supremacy as a grain market had begun to show signs of a decline.

PATENT - PRIOR PUBLICATION - SPECI-FICATIONS IN FOREIGN LANGUAGE -The question was recently raised in England whether the deposit of a specification in the German language in the library of the Patent Office in such a way as to be accessible to the public was such a publication as to avoid a patent subsequently obtained in England. In addition to the deposit of specifications and drawings at the Patent Office, the fact had been duly announced in the Patents Journal. Mr. Justice Chitty, before whom the case came, held that the deposit amounted to a prior publication. The true test, he said, was whether the German specifications had been so published in England as to become matter of common knowledge. The fact that they were not in English, he said was immaterial, as German was a language generally known.

TO CURE A FELON.

The Boston Transcript says: That woolen smoke is a cure for a felon is certainly one of the medical discoveries of the age. Could we give the name of the correspondent who sends us the following, it would be at once recognized as of authority sufficient to guarantee the truthfulness of any assertion to which it might be appended:

"If you ever endured the agony of a felon, you will appreciate the fact that it can be cured by woolen smoke. Place the woolen rags under an inverted flower-pot, and put of oats, which are as varied as the soils on coals upon them, or set them on fire some which they grow. It is in the matter of

and it will extract all the pain. This has been done by a friend of mine within a week. I assure you that in my circle we consider it as great a discovery as that ether will temporarily deaden pain. The only remedy for a felon that I ever considered infallible, and I have had cognizance of several aggravated cases, was having the part laid open (under the influence of ether) and the bone thoroughly scraped. That reaches the root of the difficulty; but the smoke cure is far better. I once took a woman to a hospital, and charged the attendants to see that the ether was administered previous to the operation; but they broke their promise, and it took two men to hold the poor girl during the operation, after she had suffered untold distress with her shared."

SUGAR AS AN ANTI-INCRUSTER FOR BOILERS.

THE Rivista di Artigliera e Genio contains an article by Colonel Polto, of the Italian Engineers, detailing a series of experiments carried out by him using sugar to prevent boiler incrustation. The boiler used was of the Field type, 126 tubes and 20 h. p. It commonly required cleaning every 45 days, or after every 380 working hours, when the weight of scale removed was 12 kilogrammes, or 261 lbs., the best method of preventing the same having been employed. Before commencing experiments, one-third of the tubes were left purposely uncleaned. The boiler was filled with water and 2 kilos. (4# lbs.) of sugar were introduced, a supply of 2 or 4 lbs. being added alternately for each of the seven days. After the usual 45 days' work, the boiler could be cleaned without scraping, and much scale had been removed from the tubes purposely left uncleaned. The rest of the tubes were perfectly clean. On repeating experiments another 45 days the unclean tubes were much better, 8 kilos. of old scale being detached and found at the bottom. The sugar was a kind known in Italy as Muscovado, a raw sugar. With water of medium hardness -about 5½ lbs. per horse power-working twelve hours a day, gave best results. The saccharine solution was found to have no corrosive effect on the boiler plates.

OATMEAL.

THE nutritive properties of oats are becoming better known, and oatmeal is coming into more and more general use. In the first place to properly manufacture oatmeal the very best grain should be used. Next in importance is the proper kiln-drying of the grain. Unless oats are properly kiln-dried it is vain to expect good meal. It is generally supposed that the purpose of kiln-drying oats is to drive out the moisture which they contain. Of course this must be done, but there is an equally important purpose to be accomplished in the process, and that is the "cooking" of the grain. But the drying and cooking are so inseparably allied that it would be difficult to explain where the one ends and the other begins. A skillful drier knows well the difference, and is well aware how many points he has to consider as to condition and texture of the grain he is handling, and the best way to bring out the flavor of the different grades

and their failure cannot be remedied by the cook of the household, however skillful she may be. One of the great objections to the more general use of oatmeal at the breakfast table is the long time it requires to cook-from thirty to forty-five minutes-whereas thoroughly good porridge should be cooked in from twelve to fifteen minutes, if the oats are properly kiln-dried. The use of "drying pomo" is an entire mistake in the manufacture of oatmeal and the steam-drying process is a still greater failure. The older process of drying on coke-kilns, either of metal plates perforated or of wirecloth, produce much better results where skillfully worked than any other process as yet in operation. Any one who has ever tasted the toothsome oatfinger for three weeks, which distress I had cakes which once formed the staple bread of Scotch households, knows that they had a flavor and crispness that no other bread had. These cakes were "fired" on what was called a "brander," and the heat of the peat or woodfire went direct to the cakes. The process of firing was exactly similar to "broiling a steak." Cakes baked on this plan were far preferable to those fired any other way. It would seem that the more directly the heat can be applied to oats without any intervening plates or bars the more effectually they are dried, and the result in the quality of the meal is more satisfactory. There is nothing to hinder a much larger consumption of oatmeal if the public are supplied with the genuine article at a reasonable price. Millers should lose no time in improving the quality of this valuable article of diet .- Daily Alta California (San Francisco).

VIOLATIONS OF BUSINESS HONOR.

An old mercantile authority says that honor is violated when a man uses information confidentially intrusted to him to anticipate the informer. A man violates the laws of honor when he takes advantage of another's unskillfulness or inexperience, or the technicalities of the law to impose on him. A man acts dishonorably when he does not make sacrifices to pay his debts promptly; when he attempts to raise the market price on another buyer; when he sells below the market price to get away his neighbor's customers; when he is unmindful of favors; when he does not allow his clerks and dependents to share in his prosperity, and in all cases when he does acts which, if thoroughly understood, would tend to lower him in the estimation of his customers, or of any good man.

A NEW FEATURE IN THE FLOUR TRADE.

"Purchases of flour have recently been made by Montreal firms on Newfoundland account," says the Montreal Trade Bulletin, "to an extent which is something very unusual for this season of the year. No less than five vessels have been engaged at Halifax by Messrs. James Lord & Co., of this city, to take about 12,000 bbls. of flour, besides butter and provisions, to St. Johns, N. F. Two vessels are already being loaded, and the other three are now on the way to Halifax to take on cargo. The principal of the above firm informed us that he never before received such large orders from New Foundland after the close of navigation, although he has been in the trade for the past twentyfive years. A considerable portion of this flour has been purchased in the west on a other way, then hold the felon over the smoke, "cooking" that the millers on this coast fail, through rate to Halifax via the Intercolonial."

MINNEAPOLIS NOTES.

JANUARY 5 the north side of the annex to Pillsbury's elevator in Minneapolis burst open and 60,000 bushels of wheat mingled with the debris of the building run out on the ground. The building cost about \$12,000. The loss on the wheat will be very little.

THE Pray Manufacturing Co. of Minneapolis has made an assignment The official schedule shows the liabilities to be \$292,826 with assets amounting to \$124,457

A LARGE sawmill is to be erected in North Minneapolis, and will be ready to commence operations next spring. It will cost about \$130,000 and will have a capacity of cutting 20,000 feet per hour.

The Pioneer Press in its annual review, in regard to the flour industry, says:

The flour milling year ends naturally Sept. A detailed review of the year's product was published Sept. 13, and the figures given here are for the year ending at the date named above. Since then the millers have had some unusually trying experiences. The fall and winter months are always liable to since the present managers have been in office,

rapid growth of the export is indicated in this table, giving the record for eight years:

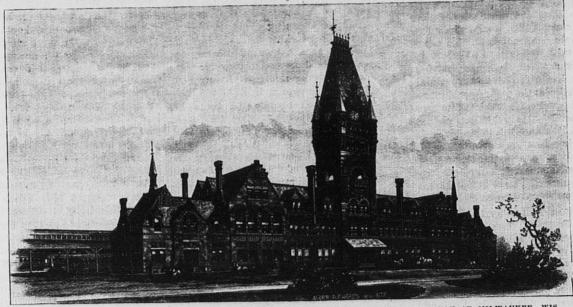
149 598 1	882-83 1,700,750 883-84 1,782,081 884-85 1,989,552 885-86 2,408,590
1881-88 081,000	

THE rumor that Minneapolis millers were about to pool their interests for the purchase of grain and the sale and storage of flour has stirred up a great amount of discussion in the newspapers. From inquiries made from parties who ought to know something about it we are inclined to believe that there is nothing in it. The Minneapolis millers have, it seems, found it unprofitable to maintain their local association.

DIED, at Tipton, Ia., Dec. 28, E. R. Stephens, junior member of the milling firm of Crocker, Fisk & Co. He was about 40 years old at the time of his death. He leaves a family. He had resided in Minneapolis since 1867.

A HAPPY NEW YEAR CELEBRATION.

character of the work. With well chosen and happy words he expressed the Company's appreciation of the services of all, complimented the employes on the character of the work they had produced, and commended the zeal they had shown in the Company's interest. He said the race had been so close between several of the salesmen, and also of the foremen, that in the language of the turfmen, all could be covered with a blanket as they passed under the wire; and in the future two prizes would be given to each class, a first and second. Among the traveling salesmen, all things being considered, Mr. Jno. M. Roe, of St. Louis, southwestern agent, appeared to be slightly in advance of his competitors, and among the foremen the statistics which had been kept during the year showed that Mr. Luther J. Curtis, of the reel room, a close winner. Each was presented with the Company's check for a liberal sum. The recipients appropriately acknowledged their thanks and were congratulated by their associates. A sentiment was drunk to the Company and then speeches were made by Clark, Winn,



NEW UNION PASSENGER STATION OF THE CHICAGO, MILWAUKEE & ST. PAUL RAILWAY AT MILWAUKEE, WIS.

make trouble with the water power and the the George T. Smith Middlings Purifier Co. make trouble with the water power and the trouble this season has been more serious than usual. The Pillsbury and Washburn mills are now nearly all provided with steam plants and undoubtedly, after their late experiences, the other millers will all soon be so provided against emergencies. Instead of so provided against emergencies. Instead of indicating any back set to the milling interest, however, this feature furnishes an added element of stability.

The milling capacity was enlarged somewhat by additions and improvements on old mills. The total daily capacity is now 33,175 barrels. The total product for the twelve months was 5,687,347 barrels against 5,450,163 barrels the preceding year, an increase of 237,184. The statement showing the remarkable growth in the past five years is exceedingly striking. It is as follows:

	Barrels.
1880-81, total product	2.900,268
1991_99 total product	.2,001,001
1999_93 total product	. 4,000,400
1999 84 total product	. 2.101.010
1881_85 total product	.0,400,100
1885-86, total product	.5,687,347
The record of the flour shipments	for the
The record of the nour simplifients	TOT THE

past four years is as follows:

	Barrels.	Barrels
1885-86	5.109,183 1883-84	4,814,424
1884-85	.5,298,951 1882-83	

A particularly gratifying feature of the situation is the development of the export trade. For the twelve months ending Sept. 1 the total export was 2,408,590 barrels. The

entertained its traveling salesmen, foremen and office assistants. At 3 o'clock, p. m., five sleigh loads left the Company's office, drawn by the firm's own teams of magnificent Percheron horses, and drove four miles to Michigan Centre, where Tim. Pangborn had prepared a sumptuous New Year dinner, at which, at half-past 4, fifty-two of the company's employes, including its officers, sat down. For an hour and a half social conversation, mingled with the clatter of the dishes, as the numerous courses were changed, and the clinking of wine glasses made merry music. Then followed speeches, stories and songs. Col. Rodney Mason, with whose name all who know the Geo. T. Smith Middlings Purifier Company and its history are familiar, led off with a presentation speech, in which he stated the annual custom and reiterated the promise of the company to make a handsome present at the end of the year to that salesman and to that foreman who had respectively sold the most machines with the least expense, and reduced the expenses of his department the most, while keeping within the bounds of the Company's instructions in reference to the in two years.

Webster, Reynolds, Roe, Mason, Hoffman and others. Tim. Pangborn amused the guests with some of his inimitable stories, told as only Tim. can tell them, and from then on until 8 o'clock, side-splitting yarns, appropriate songs by J. W. McGraw and others, filled up the time. A pleasant ride to the city wound up an evening voted by all the pleasantest in the Company's history.-Jackson (Mich.) Citizen.

FLOUR MILL DIRECTORY FOR 1886-87.

All persons desiring to reach the milling trade should invest at once in a copy of Cawker's American Flour Mill Directory for 1886-7. issued Feb. 1, 1886. It is carefully compiled: contains 18,289 addresses in the United States and Canada; Shows in thousands of instances the capacity, power and system of milling (i. e. whether the stone or roller or combined system is used). It also contains a list of millwrights and American and European flour brokers. The book is sold at \$10 per copy and can be obtained by addressing the United States Miller, Milwaukee, Wis. This Directory is published once

Practical Books for Practical Men.

ADAPTED TO THE WANTS OF ALL.

If you want any books to aid you in your business, consult the following list. If there is any other book you want, not on this list, send the title of the book to us with the name of author if possible, and we will supply it at publishers' lowest price, post-paid, to any address in the world. If you desire books sent by mail REGISTERED, enclose 10 cents additional to price of each book. All orders filled promptly. Remit by Post Office Money Order, Express Money Order, Registered Letter, or Bank Draft on New York, Philadelphia, Chicago or Milwaukee. Make all orders payable to

E. HARRISON CAWKER,

Publisher of the "United States Miller," 124 Grand Ave., Milwaukee, Wis.

The	Principles	of	Mechanism	and	Machinery	11	Trans-
mi	ssion:						

American Miller and Millwright's Assistant. By WM. CARTER HUGHES. A new edition, in one volume, 12mo.........\$1 50

Lukin.—The Young Mcchanic.

Practical Carpentry. Containing directions for the use of all kinds of tools, and for construction of steam engines and mechanical models, including the art of turning in wood and metal. By John Lukin. Illustrated. 12mo. \$1.75

Molesworth's Pocket Book of Useful Formulæ and Memoranda for Civil and Mechanical Engineers.

By Gullford L. Molesworth. Member of the Institution of Civil Engineers, Chief Resident Engineer of the Ceylon Railway. Second American, from the Tenth London Edition. In one volume, full bound in pocket-book......\$1 00

Catechism of the Marine Steam-Engine.

For the use of Engineers, Firemen, and Mechanics. A practical work for practical men. By EMORY EDWARDS, Mechanical Engineer. Illustrated by sixty-three engravings, including examples of the most modern engines. Third edition, thoroughly revised, with much additional matter. In one volume, 12mo. 414 pages. \$3 00

The Practical Steam Engineer's Guide.

In the design, construction and management of American Stationary, portable, pumping, and steam fire-engines, boilers, Injectors, etc. For the use of Engineers. Firemen and Steam Users. By Emony Edwards, author of "Catechism of the Marine Steam-Engine," "Modern American Marine Steam-Engines," etc. Illustrated by about 100 engravings. In one volume of about 350 pages. 12mo. \$2 50

The Practical Draughtsman's Book of Industrial Design, and Machinists and Engineer's Drawing Companion.

Forming a complete course of Mechanical Engineering and Architectural Drawing. From the French of M. Armengaud the elder, Prof. of Design in the Conservatorie of Arts and Irdustry, Paris, and M.M. Armengaud the younger, and Amoroux, Civil Engineers. Rewritten and arranged with additional matter and plates, selections from and examples of the most useful and generally employed mechanism of the day. By WILLIAM JOHNSON, Assoc. Inst. C. E., Editor of "The Practical Mechanic's Journal." Illustrated by fifty folio steel plates, and fifty wood-cuts. A new addition 4to, half morrocco.

**The Construction and Management of Steepin Boilers.

Roper's Practical Hand-books for Eugineers.

"Hand-Book of Land and Marine Engines," \$3.50. "Hand-book of the Locomotive," \$3.50. "Catechism of High Pressure Steam Engines," \$2.00. "Use and Abuse of the Steam Boiler," \$2.00. "Engineer's Handy-Book," \$3.50.

These books embrace all branches of steam engineering—stationary, locomotive, fire and marine. An engineer who wishes to be well informed in all the duties of his calling, should provide himself with a full set. They are the only books of the kind ever published in this country, and they are so plain that any engineer or fireman that can read can easily understand them.

Moore's Universal Assistant.

A Hand-book of fifty thousand industrial facts, processes, rules, formulæ, receipts, business forms, tables, etc., in over two hundred trades and oбсupations Toge-ther with full directions for the cure of disease and the maintenance of health. By R. Moore. A new revised edition. Illustrated, \$2.50

YIELD.

THERE is one machine among the many employed in milling operations that is not nearly understood in utility; at least its potency to success in mill managing is not properly appreciated. It is the automatic grain scale that regularly weighs and registers the wheat as it is manufactured into flour. The business manager of the mill may imagine that whereas he at regular intervals weighs up so much grain into the stock hopper and takes account of all its products, that he has reduced the subject of yield to a science, and has the work indicative of profit or loss down to a very fine point; but it is noticeable that the balance sheet at the end of a season is not in accordance with the interval showing, and this is easily accounted for. But few, if any, millers like the idea of "getting left" on a test run, consequently when the special test is made special milling is done, and not frequently the year of a poor yield on a trial occasion is too much for the poor miller's squareness, and he will, if possible, smuggle in some stock and shuffle aside some of the feed, or turn in some high grade flour and turn aside some of the low grade. Again, the manager usually accepts a good showing with better grace than a poor one, and an inordinately large yield creates a better feeling all around than the inordinately small. A good and reliable grain weigher and register properly manipulated does away with the test as usually conducted, and is at all times a powerful incentive to careful milling and grain buying, while at the same time there is not much room for debate and bickering between the miller and manager as to mistakes in weight of stock or products, as the grain scale is in charge of the managing miller, who has the privilege of overlooking the weighing and counting up of products. Of all the ways of getting at the truth of milling conduct, satisfactory to all around, none are so positively certain as the well arranged and conducted automatic grain scale standing as an indicator to what the mill is doing properly or otherwise .- The Modern Miller.

ITEM'S OF INTEREST.

A LABORING man of Minerville, Pa, has patented a car brake, which he thinks is much better than the Westinghouse brake. He says it can stop a freight car running at the rate of thirty-five miles an hour in fifteen feet, lock the wheels dead in six or eight seconds, and stop a locomotive running at the rate of forty miles an hour before it has moved twenty-five feet. He has been offered \$75,000 for his invention.

PORTLAND (OREGON) FLOUR OUTPUT .-The Portland News says that Portland probably has fewer flouring mills than any other city situated in the heart of a great wheatgrowing country in the United States. very large quantity of wheat is received there annually. There are but three mills in the vicinity of the metropolis, two in Portland and one at Albina. Only one at Portland has produced any quantity of flour this year, the others confining themselves to other productions. The two at Portland have a capacity of 1,350 barrels, and were operated about barrels. This output, at \$3.75 per barrel, was vater receiving wheat on deposit and also it would do the eight-minutes act, as stated

report a large and increasing demand for the flour, which now goes in all directions; principally to Europe, although British Columbia, l'uget Sound and other parts of the Pacific Coast consume large quantities of it. There is room in Portland for several flouring mills of large capacity.

MONTREAL STORAGE RATES.—The rates of storage in Montreal are as follows: On grain ex-craft-elevating and weighing in, 1c per bushel, 10 per cent. off; transhipping from one vessel to another (each vessel), tc per bushel, 10 per cent. off; storage for each term of ten days, to per bushel. On grain ex cars and carters-Storage for first term of 10 days, 1c per bushel; each succeeding 10 days, tc per bush.; loading on cars, \$1 per car. No extra charge for weighing out and delivering grain in bulk on board craft, or in hoppers for bagging. On flour and meal-Storage for 48 hours, 1c per bbl. and 1c per bag of 100 lbs.; storage for 10 days, 2c per bbl. and 14c per bag of 100 lbs.; storage for first month, 3c per bbl. and 2c per 100 lbs.; storage for succeeding months, 2c per bbl. and 11c per bag of 100 lbs. delivery to craft, 11c per bbl. and lic per bag of 100 lbs.; up-ending or repiling, ic per bbl. and ic per bag of 100 lbs.; loading on cars, \$1 per car The cooperage on flour, 11c per bbl. On short weight there is a fine of 2c per bbl. on flour. The inspection of flour 1s 2c per bbl. or bag.

THE "typo-telegraph," which is a new invention, is now being tried in Paris by the Minister of Posts and Telegraphs. It has it is intended to be devoted chiefly to press messages. The article of a paper or journal which is to be forwarded by telegraph to another journal is first set up in ordinary type in a column and then stereotyped. The block is afterward sent to the telegraph office and serves as original of the message. M Fedor claims that the rapidity of the transmission may reach 1,200 letters per minute, or about 14,000 words per hour.

THE very best way to prevent scale in a steam boiler, is to use a feed water heater that will deposit the scale by raising the temperature of the water in the heater high enough to liberate the soluble matter before the water gets into the boiler. Nobody ever heard of "bagged sheets" on a heater. We see one every day on boilers. Don't let the scale in and it won't trouble you.

TEMPERING STEEL.-When we were much younger than we are now and the zylonite clearing on top of our head hadn't acquired such beauteous proportions, we had to temper up a lot-yea verily, many lots-of steel tools, and here's the "great secret" we used: We got a "slush bucket" and washed it out clean, then weighed out 1 ez. corrosive sublimate, put in two handsful common salt and stirred it up with two gallons rain water, heated the tools in hot lead and hardened in this liquid and drew over a charcoal fire. A tool never broke.

You can make your own "gas fitters'" cement thusly: Melt up 41 lbs. rosin, 1 lb. beeswax, and stir in 3 lbs. Venetian red; it will hold gas in.

SALE OF WHEAT DEPOSITED-APPARENT AUTHORITY.-A company operating an ele-

worth \$1,545,000. The officers of the mill purchased wheat on its own account. The wheat deposited and the wheat purchased were mingled in common bins, and publicly sold and shipped from day to day, with the knowledge of the depositors. The Supreme Court of Indiana held (Lagrange et al. vs. Witherspoon et al.) that, under the circumstances, the elevator company was clothed with an apparent title and right to sell the wheat, and that those who purchased wheat from them in good faith and in the usual course of business would be entitled to hold it as against the depositors.—Bradstreet's.

Or interest to engineers is a tell-tale paint, the invention of an Englishman. If the bearings of an engine are covered with this paint, the abnormal color of which is a brilliant red, and such bearings run hot, the paint will darken in color, until at 180° Fahrenheit it is quite brown. As the paint cools it recovers its original color.

Down draughts in chimneys may be obviated by a recent English device. It consists of a number of grooved rings placed over each other with spaces between and made of metal or clay. The grooves are so shaped that when the wind strikes them it is so deflected that it draws air up the chimney, and in this way effectually prevents down draught.

NONSENSE.

A COURT EPISODE.-Judge Cory's Irish setter went into convulsions the other day. He was sitting on a faded orange blossom beside the judge when the name of A. L. Miller was called. Miller is a Norwegian. He has been been submitted by M. Etienne de Fedor, and a resident of the United States for six years and served fifteen months in the Stillwater penitentiary. When his name was called not one of the twenty-six prisoners stirred. The dog scanned the crowd and finally fixed his eyes on Miller. The judge did likewise.

"Miller, you are charged with vagrancy," he said.

Miller never stirred.

"Stand up, sir, when I call your name." Still Miller remained immovable and the dog seemed mistified.

"Bailiff, ask him if he talks English," ordered the court.

"Can du intet tala Engleska?" asked the bailiff.

"Yah, voeg can stet itcha tula Engleska," replied Miller.

The dog smiled.

"He says he can't talk English," interpreted the bailiff.

The dog smiled again.

"Well, tell him I will give him thirty days in the work-house where he may study the English language," replied the court

"Vell, vell," said the man who couldn't speak English, "you vas ye yamdest yudge as I ever see 'cause I no speak English. I vish now I say I speak English.

The dog convulsed .- Pioneer Press.

A GOOD story is told upon a patent churn agent. He visited a farm house to sell one of his double-geared, back-action, chainlightning churns, that would bring butter in eight minutes by the clock. The old man had sworn to wage war on all agents, but he was from home, and the young ladies of the house invited the agent in, gave him his dinner and talked about his churn. Finally they said they would not buy one unless

in the hand-bill. "Just bring on your cream," said the knight of the churn. "and while you watch the clock I will run the machine." The girls filled up the churn with the rich creamy looking liquid, and the man grasped the handle and began to churn. At the end of eight minutes he took off the cover, bt there was no signs of butter. He laid off his coat and turned away at the crank for another eight minutes, but yet there was no sign of butter. Then he laid aside his vest and unbuttoned his collar. He twisted and perspired, and swore under his breath, until forty minutes had gone by, and the butter did not come. Then with a wild look in his eye he gathered up his churn, called for his bill, hitched up his team and hied himself awav.

The girls had filled the churn with butter-

A TWO CENT STAMP.

Sent with your full address to A. V. II. Carpenter, General l'assenger Agent, Milwaukee, Wis., will bring you one of the following named publications, issued for free distribution by the Chicago, Milwaukee & St. Paul Railway:

Gems of the Northwest. A Tale of Ten Cities. Uncle Sam's Journey. Guide to Summer Homes. The Overland Journey. The Northwest and Far West. Plain Facts about Dakota.

All of these publications are finely illustrated and contain valuable information which can be obtained in no other way.

MILLING PATENTS.

The following list of patents relating to milling interests granted by the U.S. Patent office during the past month, is specially reported by Stout & Underwood, Solicitors of Patents, 66 Wisconsin street, Milwaukee. Wis , who will send a copy of any patent named to any address on receipt of 50 cents :

Issue of November 2, 1886-No. 351,782, pneumatic grain elevator, J. Lewis, South Evanston, Il.; No. 351,854, grain conveyor, H. Delhaye, Paris, France.

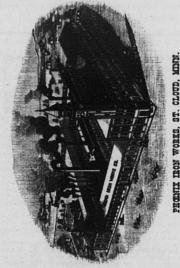
Issue of Nov. 9-No. 352,135, grinding mill, J. R. Kinley, Chicago, Iil.; No. 352,228, brushing mechanism for bolting reels, J. W. Crosby, Leeds, England.

Issue of Nov. 16-No. 352,810, middlings purifier, J. P. Deubel, Ypsilanti, Mich.

Issue of Nov. 30-No. 353,353, automatic grain weighing machine, C. Dominy, Englewood, Ill.; No. 353,436, feeding mechanism for grain, flour, etc., C. A. Andrus, La Grange, Ohio.

THE PHENIX IRON WORKS CO.'S NEW WORKS SAVE YOUR POWER AT ST. CLOUD, MINN.

On January 1, the Phœnix Iron Works Co. of Minneapolis, took possession of their splendid new establishment at St. Cloud, Minn. The authorized capital, \$50,000, has all been paid in, and the machinery all placed and started up. The officers elected at the annual meeting of the company are: J. M. Rosenberger, president; J. M. Schutz, vice-



president and manager; John W. Head, secretary; H. J. Rosenberger, treasurer; J. B. Rosenberger, superintendent. The office of the company is at 46 Corn Exchange, Minneapolis.

The grounds that the buildings cover are 360 feet front, facing the canal, and 240 feet deep. The buildings cover the entire block, with railroad facilities at the back end. The three-story building, with the tower, is 60x280 feet, used for wood-working shop and main office. The machine shops extend the full length of the 360 feet frontage, with a twostory building on the lower corner and extending 280 feet deep. The foundry, 62x218 feet, and blacksmith shop, 40x60 feet, are located in the center. The shops are fitted up with the latest improved iron and woodworking machinery for manufacturing the firm's specialties. The new works form one of the largest establishments of the kind in the country and the manufacturers of the "Monitor" and the "Crown" are to be congratulated that they have secured such splendid permanent quarters.

Belting and Machinery

ational Pulley Govering

Cheap and Durable. Effective and Easily Applied.

SEND FOR CIRCULAR and SAMPLE.

Engines, Bollers, Hot Polished Shafting, Pulleys, Hangers. Leather Belting, Etc.

H. P. YALE & CO., 98 West Water St., - - MILWAUKEE, WIS.

LEARN TO TELEGRAPH COMPLETE

OUTFIT, \$3.75; without Battery, \$3.00.

Railway Telegraph Supply Co., 211 & 213 Randolph Street, - - OHICAGO

—) A (-FOR EVERYBODY.

An Unparalled Offer to Our Subscribers.

By an agreement with Schlicht & Field Co., Rochester, N. Y, the publishers of the handsomest low price monthly magazine in the world, we are able to give

THE COSMOPOLITAN,

THE "UNITED STATES MILLER"

The Shannon Letter and Bill File or the Shannon Sheet-Music Binder for One Year

For Only Two Dollars and Seventy-five Cents. See what we give for this marvelously small sum:

 THE UNITED STATES MILLER, pri.e.
 \$1 00

 THE COSMOPOLITAN, price
 2 50

 PREMIUM, price
 2 25
 THE COSMOPOLITAN is filled with short stories, sketches, poems, travels, adventures; biographical, listorical, literary and scientific articles; articles on political economy and all the leading topics of the

political economy and all the leading topics of the day.

THE YOUNG FOLKS' department is devoted to articles for the younger members of the family, while THE HOUSEHOLD contains articles on fashion, etiquette, cooking, the creand management of children, etc., etc.

Each number contains one or more handsomely illustrated articles and several full page engravings by the best artists.

THE COSMOPOLITAN is the only magazine that can be read by everybody with unabated interest from the first page to the last.

A First-Class Newspaper, a Beauti-

A First-Class Newspaper, a Beauti-full Illustrated Magazine, and an invalu-able Premium for only \$2.75.

Think of it, and Subscribe at Once!

Ac py of THE COSMOPOLITAN may be seen at this office. To the persons sending 20 cents to Schlicht & Field Co., Rochester, N. Y., a speciment copy will be forwarded.

· Private · Telegraphic · Cipher ·

COMPILED EXPRESSLY FOR THE USE OF

Millers, Flour and Grain Brokers, for Private Telegraphic Correspondence, either for Land or Cable Lines.

THIS CODE has been approved and is used by many of the best firms in this country and in Europe. It contains Flour Tables, Bran Tables, Middlings Tables, Flour Grades and Brands, Time of Shipment, Dates, Names of Places, American Currency, Sterling Quotations, Table on Limits, etc., Drawing, Credits, etc., Selling, Buying, Orders and Offers, Consignments and Shipments on Joint Account, Miscellaneous, Market Upwards, Market Downwards, Insurance, Shipping and Freight, Shipping by Regular Lines of Steamers, Finance, Bankers' Names, Standing of Firms, Telegraphing, Advices, Commission. Stocks and Crops, Weather, Samples and Quality, Equivalent of Sacks in Barrel Quantities, Commission Tables, Interest Tables, Equivalent Flour Prices in Currency, Sterling, Francs, Guilders, and Marks. Comparative Tables, Sack and Barrel Flour, Ocean Freight Rates (Comparative Table), Sallings from Seaboard Table, Koreign Weights and Measures, etc.

We respectfully refer to the following well-known firms: S. H. Seamans (Empire Mills), Selvy of the Millers' National Association; E. Sanderson & Co. (Phoenix Mills), Milwaukee, Wis.; Daisy Roller Mills, Milwaukee, Wis.; Daisy Roller Mills, Milwaukee, Wis.; Daisy Roller Mills, Milwaukee, Wis.; Toots & Co., (Millers), Cincinnati, O.; C. H. Seybt, (Miller), Highland, Ill.: Kosmack & Co., (Flour Brokers), Glasgow, Scotland; J. F. Imbs & Co., (Millers), St. Louis, Mo.; E. Schraudenbach, Okauchee Roller Mills, Wis.; Winona Mill Co., Winona, Minn.; Herrick, Kirk & Co., New York; and many others. Name of firm ordering copies printed on title page with cable address, etc., free of charge, making it to all intents and purposes your own Private Cable Code. State number of copies desired when writing. Prices furnished on application. Address,

NEWS.

THE new mill at Rapid City, Dak., has started up. THE grist mill at Moyock, N. C., burned Christmas. Loss, \$7,000.

O. DARLING's flour mill at San Diego, Cal., has been attached for debts.

THE 600-barrel flour mill at Fergus Falls, Minn., has shut down for the winter.

TRACK-LAYING is progressing slowly on the new railroad from Winnipeg to Hudson's Bay.

AT East Orange, N. J., Dec. 24, George K. Sutphin's grist mill on Midland avenue was burned. Loss. \$6,000.

CRESCO, Ia., millers have declared war against outside flour and feed, and the citizens are stocking up well at low prices.

THE N. P. Railroad has extended its line down the Red River to East Grand Forks, Minn., opposite Grand Forks. Dakota.

THE boiler in the new flour mill at Lafayette, Ind., exploded with terrific force, Jan. 4, killing engineer De Lyst and miller Reid.

MARRIED-Jan. 9, V. L. Rice, head book-keeper of the Wabasha roller mill, of Wabasha, Minn., to Miss Gertrude Whitmore, of same place.

ACCORDING to the returns made by the commission there are in Dakota 344 elevators, and 306 warehouses, having an aggregate capacity of 13,843,000 bushels.

AT Neshannock Falls, Fla., Dec. 15, fire destroyed Swogger's flouring mills, with its grain and flour. The fire is supposed to be the work of an incendiary. Loss, \$5,000.

THE Chicago, Milwaukee & St. Paul R. R. have purchased a valuable piece of property in Kansas City, on which to erect a depot. Real estate is said to be booming in Kansas City.

THE Knights of Labor have lifted the boycott placed on the Empire Mower and Reaper Works of J. F. Seiberling & Co. and other enterprises in which J. F. Seiberling was interested in Akron, O., and

MR. WILLIAM LINDEKE, the St. Paul miller, has recently sold his mill and a part of his adjoining property to the St. Paul & Northern Pacific R. R. for He is now erecting a new 250-barrel roller mill on his property adjoining that sold to the railroad. It will, of course, be driven by steam power, and we understand the engines and boilers have already been contracted for.

THE Prospect Machine & Engine Co., Cleveland, O., have shipped one of their 450 horse-power engines to the Bohn Manufacturing Co., St. Paul, Minn., and will soon ship an 850 horse-power engine to the A. H. Hart Co., New York, and one of the same size to the Mahoning Valley Co,. of Youngstown, O. Their Reel trade is also very encouraging. One of their late foreign orders is for ten of their largest size Jonathan Mills Dressers for a new mill in New Zealand.

THE San Francisco Produce Exchange makes the following report on January 1, 1887: Stock on hand, 400,000 tons; required for consumption, seed, carry over and shipments to Pacific Ocean paints, 150,000 tons; balance available for shipments to Europe, 250,000 tons, equal to 8,000,000 bushels. Last year California sent to Europe 402,000 tons, 60 per cent. more than the quantity at present in the state for export to Europe. Next season's surplus is likely to be small, with only a small carry over to add to it.

CHAS. H. PILLSBURY is thus quoted by an interviewer: "Usually about the close of navigation millers shut down or store most of the flour, as it will not stand advanced rates, but none of the millers or their correspondents in America or Europe have any stock of flour, and consequently all mills are running as far as their water power or steam adjuncts will permit; and instead of their being an immense stock of flour on hand, as is usual at this time of year, I don't think there is a miller in Minneapolis who has not more orders on his books than he has flour."

THE Prospect Machine & Engine Co., of Cleveland, O., have had a very large trade on the Jonathan Mills Universal Flour Dressers during the past year, PARKER, BLOOD & TOWER,

and they report a very encouraging outlook for the coming year. Among their recent orders are 18x36" reels, ordered by Nordyke & Marmon Co. for a new mill in New Zealand; 4x36" and 2x26", ordered by Edward Corbett, for Marietta, O., mills; 4x20", ordered by Nordyke & Marmon Co.; 1x36", ordered by Smith, Hill & Co., Quincy, Ill.; 1x20", for Hinman & Co., of Perry, Ill.; 1x20", Baldwinsville, N. Y.; 1x20" and 1x36", Denton, Tex.; 3x20" to Nordyke & Marmon Co.; 1x26", Delavan, Ill.; 1x26", Pniladelphia; 8x36", E. P. Allis & Co.; 1x36" and 1x20", Danville, Ill.; 1x20", Auburn, Ky.; 1x26" and 1x23", Nordyke & Marmon Co., etc., etc. Their orders for the present month show a great increase over the corresponding month last year.



the largest circulation and is the most influential newspaper of its kind published in the world. The advantages of such a notice every patentee understands.

understands.

This large and splendidly illustrated newspaper is published WEEKLY at \$3.00 a year, and is admitted to be the best paper devoted to science mechanics, inventions, engineering works, and other departments of industrial progress, published in any country. It contains the names of all patentees and title of every invention patentee ach week. Try it four months for one dollar. Sold by all newsdealers.

If you have an invention to patent write to Munn & Co., publishers of Scientific American, Si Broadway, New York.

Handbook about patents mailed free.

Mills · For · Sale.

Short advertisements will be inserted under this head for One Dollar each insertion.

A Flour Mill in a good wheat section on D. R. G. R. R., Colorado. Finest of Water Power. Three runs of Burrs, Centrifugal and Cleaning Machine, all in best conditions. Good reasons for selling, and special inducements given to purchasers. For terms, etc., address FRED. PISCHEL, La Veta, Col.

FOR SALE.

Half interest in 2-run Custom Water Power Flouring Mill. Dwelling house of 9 rooms and Ferry across Wisconsin river. Situated eight miles North of Kibourn City, Wis. Price, \$1600.00. The other interest may be bought at about same price. For particulars address M. F. WALTON, 584 Washington Street, Milwaukee. Half interest in 2-run Custom Water Power

EVERYBODY'S PAINT BOOK

A new work on INDOOR and OUTDOOR painting which is destruct to leach
people how to DO THEIR OWN
PAINTING and save the expense of a
professional painter. The most practical and
valuable work of the kind cere issued. Full
directions are offer mixing paints for
PAPER HANGING, VARNISHING,
POLISHING, as well as how to RENOVATE FURNITURE, so that it will
look as good as the work of the labes are so much
laismine. Full directions are given for
making the beautir. SPATTER-WORK
pleatures in which the labes are so much
laismine. Full directions are given for
making the beautir. SPATTER-WORK
pleatures in which the labes are so much
laismine. Full directions are given for
making the beautir. SPATTER-WORK
pleatures in which the labes are so much
laismine. Full directions are so much
laismine. Full directions are fiven for
making the beautir. SPATTER-WORK
pleatures in which the labes are so much
laismine. Full directions are so much
laismine. Full directions are so much
laismine. Full directions are fiven for
making the beautir. SPATTER-WORK
pleatures in which the labes are so much
laismine. Full directions are so much
laismine. Full directions
are given in the second of the second
laismine. Full directions
are given in the second of the second
laismine. Full directions
are given in the second of the second
laismine. Full directions
are given in the second of the second
laismine. Full directions
are given in the second of the second of the second
laismine. Full directions
are given in the second of the second of

We will send a copy of the UNITED STATES MIL-LER for one year, and a copy of "EVERYBODY'S PAINT 2005," post paid, to any address, for \$1.50. Address E. HARRISON CAWKER, No. 124 Grand Avenue Milwaukee, Wis

A BARGAIN FOR A MAGHINE SHOP

FOR SALE VERY CHEAP.

One Chilled Roll Grinding and Corrugating Machine with Counter Shafts complete. In good condition.

One, same as above—nearly new.

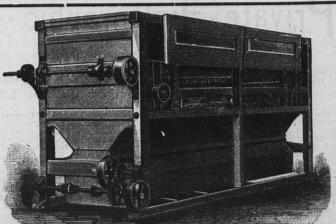
One Chilled Roll Grinding Machine for Grinding only. Used but little.

Will make prices to suit. Address at once, or call on

THE FILER & STOWELL CO.,

Northwest Corner Clinton and Florida Sts.,

MILWAUKEE, WIS.



-THE-

Advance Shake FLOUR BOLT.

Better than the Centrifugal or Old-Fashioned Bolt in every part of the mill.

No forced bolting in this Ma-chine, but a sliding action of the chop which tails the impurities over instead of driving them through the cloth.

No Machine built can begin to equal the work of the ADVANCE.

This is no clap-trap or hoax, and if a y miller is about to build or remodel, it would pay him to go a thousand miles to see this machine and it work.

Do sure and write for particular

Be sure and write for particu-iars and circu ars.

LAINGSBURG, MICHIGAN.

PROPOSALS FOR FLOUR FOR ISSUE AND FOR FLOUR, FAMILY.

HEADQUARTERS DEPARTMENT OF DAKOTA, OFFICE CHIEF COMMISSARY OF SUBSISTENCE, ST. PAUL, MINN., JAN. 12, 1887.

ST. PAUL, MINN., JAN. 12, 1871.

SEALED PROPOSALS, in triplicate subject to the usual conditions, will be received at the office of the Acting Commissary of Subsistence at each Post named herein until 12 o'clock m., Tuesday, Feb. 15, 1887, at which time and places they will be opened in the presence of bidders, for Flour if wheat is raised and flour is manufactured in vicinity of said posts) delivered thereat in the following quantities:

DELIVERED AT

FLOUR, ISSUE.

red thereat in the following quantities:

FLOUR, ISSUE.

10,000 lbs.

Fort Abraham Lincoln, D. T.

8,000 "Bennett, D.T.

120,000 "Meade, D. T.

30,000 "Permina, D. T.

44,000 "Permina, D. T.

44,000 "Permina, D. T.

44,000 "Sully, D. T.

Sealed Proposals will be received and opened, at this office, at the same time, for 680,000 lbs. of Flour for Issue, and 60,000 lbs. of Flour, Family, or any part the tereof, delivered free on board of cars at St. Paul, Minneapolis, Minn., or Bismarck, Dak.

Flour for issue to be equal in quality to standard samples to be seen at the respective offices, and to be put up in barrels, or square double sacks, or square single sacks, containing 100 pounds net each, as may be required, and deliverable after 10 days notice.

Flour, Family, to be of a quality equal to Washburn's "Superlative," packed and deliverable under the same conditions as Flour for Issue.

The successful bidders will be required to enter into formal written contract, within ten (10) days after notification of award, and furnish bond to the amount of one third the value of the articles contracted for.

The right to diminish the amounts to be purchased is reserved to the Government, and with the consent of the bidders to whom awards are made, they may be increased.

For conditions, etc., apply to the undersigned, or to the above mentioned offices.

The Government reserves the right to reject any or all bids.

Proposals should be enclosed in sealed envelopes and marked "Proposals for Flour."

all bids.

Proposals should be enclosed in sealed envelopes and marked "Proposals for Flour."

C. B. PENROSE, Captain and C. S. U. S. Army, Chief C. S. Dept. of Dakota.

WE will send you a copy of "Leffel's Construction of Mill-dams, and Bookwalter's Millwright and Mechanic," and "The U.S. Miller" for one year for \$1.30. Don't miss it.

PUBLICATIONS RECEIVED.

WE acknowledge the receipt from Mr. J. M. Case, of the Case Mfg. Co., of Columbus, O., of a handsome calender and an original acrostic Garfield memorial which shows great ingenuity and skill.

THE New Year's number of The Art Amateur, published by Mr. Montague Marks, 23 Union Square, is certainly a fine collection of artistic gems, and deserves to be in the hands of all art lovers.

HARPER'S MAGAZINE for January furnishes a generous installment of the novel attractions promised in its prospectus for the coming year in four strong and fresh contributions—the first part of Sir Edward Reed's "Continental Navies," the commencement of the series of Southern articles in Charles Dudley Warner's "New Orleans," Millet's "Summer Cam-paign with the Cossacks," starting the series of Eastern Papers, and the initial installment of Kathleen O'Meara's Russian n' vel, "Narka." Besides these special features the number contains a double installment of Blackmore's "Springhaven." the continuation of Roe's "Home Acre," a capital story by R. M. Johnston, "A Note on Impressionist Painting" by Theodore Child, several short poems, and the richly laden departments.

THE sales of The Century Magazine have gone up over 30,000 copies in six weeks, since beginning the Life of Lincoln. A second edition of December will be issued on the 15th. A veteran New York publisher predicts that the permanent edition of the magazine will go beyond 300,000 before the completion of the Lincoln history. The January installment, which is said by the editors to be of most surpassing interest, occupies thirty pages of the magazine, and treats of Mr. Lincoln's settlement in Springfield; his practice of law in that city; the Harrison campaign; Lincoln's marriage; his friendships with the Speeds of Kentucky; the Shields duel; and the campaign of 1844. The illustrations are numerous, including portraits of Joshua Speed and wife, of Mrs. Lucy G. Speed, Milton Hay, President Harrison, General Shields, William H. Herndon (the law partner of Mr. Lincoln), and Mr. Lincoln himself, from the photograph pres nted by him to Mrs. Lucy G. Speed, in 1861. Pictures are given of the house where Lincoln was married, also the house where he lived after his marriage, etc., etc.

THE GRAPHIC NEWS, Cincinnati, O., Holiday number has come to hand, and we must say is highly meritorious from every point of view. The illustrations are numerous and of high artistic merit-the colored plates are well executed and the typography and paper and press work are about as near perfection as we ever see. The Graphic is steadily growing in popular favor, and is well deserving of the extensive patronage it already enjoys.

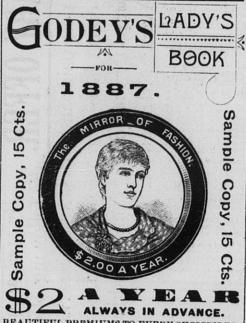
THE February number of Scribner's Magazine, of which 125,000 copies have been ordered as a first edition, will contain a most interesting artic'e, by Mr. John C. Ropes, upon the "Likenesses of Julius Cæsar, with 18 portraits, one of which, engraved by Mr. W. B. Closson, will be the frontispiece of the number. A new story is begun in the same number, United States or Canada, for \$1.

by Mr. F. J. Stimson (J. S. of Dale), entitled, "The Residuary Legatee." The second, installment of ex-Minister Washburne's "Reminiscences of the Siege and Commune of Paris" is of the greatest interest, describing as it does the most interesting phases of the Siege.

Messrs. Scribner have in press a new novel, by Mr. John T. Wheelwright, entitled, "A Child of the Cen-

THE BROOKLYN MAGAZINE for February will be a very attractive number. It is withal one of our brightest magazines, and one of the cheapest: 20 cents per number, or \$2.00 per year. The Brocklyn Magazine, 132 Pearl St., New York.

WE will furnish the UNITED STATES MILL-ER for one year and Alden's Handy Atlas of the World, post-paid, to any address in the



BEAUTIFUL PREMIUMS TO EVERY SUCSCRIBER.

TERMS TO CLUBS.

Extra Premiums to Club Raisers.

2 Copies..... \$3.50 For list of Premiums and terms to larger clubs, send for Sample Copy, which will give you full infor-

send for Sample Copy, which will give you full information.

GODEY'S at the present time is admitted by press and people to be superior to any ladies' magazine in America, having the greatest variety of departments, ably edited.

The literary features are: Serials, Novelettes, Short Stories Charades, Poems, Etc.

Among the popular authors who will contribute to Godey, are: J. V. Prichard, Miss Emily Reed, Juo. Churchitl, William Miller Butler, Emily Lennex, and others.

others.

Engravings appear in every number, of subjects by well-known artists, and produced by the newest processes. In its Colored Fashions Goder's leads in colors and styles. Both modistes and home dressmakers accord them the foremost position.

Paper Patterns are one of the important features of this magazine; each subscriber being allowed to select their own pattern every month, an item alone more than covering the subscription price.

Practical Hints upon Dressmaking show how garments can be renovated and made over by the patterns given.

ments can be renovated and made over by the patterns given.

Practical Hints for the Household show young housekeepers how to manage the culinary department with economy and skill.

Fashion Notes, at Home and Abroad, delight every lady's heart.

The Colored and Black Work Designs give all the newest ideas for fancy work.

The Cooking Recipes are under the control of an experienced housekeeper.

The Architectural department is of practical utility, careful estimates being given with each plan.

GODEY'S has arranged to give elegant Silver Plated Ware of superior makers as premiums, the value of which in some instances reaches over \$25.00 for one premium. Send 15c. for Sample Copy which will contain Illustrated Premiums with full particulars and terms. Address,

GODEY'S LADY'S BOOK, Philadelphia, Pa. In Club with this paper, GODEY'S and THE UNITED STATES MILLER. Price, for both, \$2.50, which should be sent to the office of this Paper.

10.000 More Wanted this Month

A FEW PROPOSITIONS FOR YOUR CONSIDERA-TION.

In order to add to our list of regular subscribers to the UNITED STATES MILLER (established May, 1876), we submit the following propositions, one of which we trust you will accept by return mail. The subscription price of the U.S. Miller alone is \$1.00 per year, but if you will send us your order within 30 days from receipt of this we will send you for one year

For \$1.00 "The U.S. Miller" and "Ropp's Calculator" or "Ogilvie's Handy Book" or "The Fireman's Guide" or "Fifty Complete Stories" or "High and Low Life in New York.

For \$1.50 "The U. S. Miller" and "Everybody's Paint Book" or "Webster's Practical Dictionary" or Potter and Huntington's "Millers' Exchange Tables."

For \$2.50 "The U.S. Miller" and "Moore's Universal Assistant and Complete Mechanic."

For \$3.00 "The U.S. Miller" and "Dr. Cowan's Science of a New Life," an invaluable work for all married people or those contemplating marriage. Fully illustrated.

For \$3.50 "The U.S. Miller" and "Gibson's Gradual Reduction Milling," the best work for the use of operative millers published. Published 1886.

For \$4.00 we will send you for one year all the following milling papers, "The U.S. Miller," "The American Miller" "The Northwestern Miller" (weekly), and "The Milling World" (weekly). If you are now a subscriber for any of these papers you will be credited for another year, or if preferred will send papers to any other address desired.

For \$5.00 we will send you the papers named in our four-dollar offer and "The Millers' Review," (Phila.), or "The Modern Miller," (Kansas City), or "The St. Louis Miller."

Address all orders to

E. HARRISON CAWKER, Publisher,

No. 124 Grand Ave., Milwaukee, Wis.

"Mill for Sale," "Mill for Rent," or " Machinery for Sale," short advertisements, \$1.00 each insertion.

enclose

one

or two

cent stamps

for the odd

2

cents our

ILLER,

Zo.

lust

as

represented

Our object is to increase

following

forty-five

books,

post

paid,

and the United States Miller

REGULAR

CIRCULATION.

HARRISON

CAWKER,

Publisher UNITED STATE

the

tollowing

offer

tor

8

for

one year

tor

\$1.25

The

books

ORDER BY KETURN

MAIL.

You may

short time only.

We

WIII we

turnish

special

arrangements

with

the publishers

are

ab

ie

mak

named for which find enclosed \$1.2

one

copy

9

the

UNITED

RISON

Complete Novels and Other Works, by Fameus Anthors, Almost Given Away. The following books are published in neat pampilet form, and all sire printed from good type upon good paper. They treat of a great variety of subjects, and we think no one can exhaust the list without inding therein man that books would cost it to possess. It is the property to the subject in the subject in the list without inding therein man that books would cost it is just as funny to-day, as it ever was.

2. Wister Evening Recreations, a large collection of Acting Charades, Tableaux, Games, Puzzles, etc., for social gatherings, private theatricals, and evenings at home.

3. Hack to the Old Home. A Novel. By May Ceeli Hay, author of "Hidden Perils."

4. Bialogues, Reclitations and Readings, a large and choice collection for school exhibitions and public and private curettimments. Letter Waker for Ladies and Gendirections for the composition of letters of every kind, with immunerable forms and examples.

5. The Frozen Deep. A Novel. By Wilkie Collins, author of "East Lynne," etc.

7. Red Court Farm. A Novel. By Mrs. Henry Wood, author of "East Lynne," etc.

8. The Lady of the Lake. 'N SI Walter Scott. "The Lady of the Lake 'in a runauce in verse, and of all the works of Scott, mone far new location has the substantial and Barden. A Novel. By the author of 10. Amos Barten. A Novel. By the author of 10. Amos Barten. A Novel. By George Kilot, author of "Adam Rede," "The Mill on the Floss," etc.

works of Scott, none is more beautiful usan this.

9. In Cupid's Net. A Novel. By the author of 'Dora Thorne.

10. Amos Barten. A Novel. By George Ellot, author of "Adam Bede." "The Mill on the Floss," etc.

11. Lady Gwendeline's Bream. A Novel. By the author of "Idra Thorne."

12. The Mystery of the Holly Tree. A Novel By the author of "Bora To Thorne."

13. The Budger of Wit, Hunnor and Fun, a large the author of "Bora To Wit, Hunnor and Fun, a large linder of Wit, Hunnor and Fun, a large linder of Wit, Hunnor and Fun, a large linder, and the thin the story of the Stor

Grimm's Fairy Stories for the Young. The t collection of fairy stories published. The children 19. Grimm.

Intest collection of fairy stories pages and Gentien en. a guide to politeness and good breeding, giving the rules of modern etiquete for all occasions.

21. Useful Knowledge for the Million, a handy book of useful information for all, upon many and various book of useful information for all, upon many and various book of useful information for all, upon many and various book of useful information for all, upon many and various book of useful information for all, upon many and various book of useful information for all, upon many and various book of useful information for all, upon many and various book of useful information for all, upon many and various book of useful information for all upon many and various bo

niodern cfiquette for all occasions.

21. Useful Knowledge for the Million, a handy book of useful information for all, upon many and various subjects.

22. The Home Cook Book and Family Physicalan, containing hundred; of excellent cooking recipes and lints to housekeepers, also telling how to cure all common alliments by single per Casioms in Far Away Lands, a very interesting and instructive book of travels, describing the peculiar life, habits, manners and customs of the peculiar of foreign countries.

24. 87 Popular Ballads. Same size as sheet music. Words of all the old and new songs.

25. Called Back. A Novel. By Hugh Conway.

26. At the World's Mercy. A Navel. By Florence Warden, author of "The Bigue on the Marsh," etc.

27. Mildred Trevanion. A Novel. By "The Duchessan Bark Bays. A Novel. By the author of "Called Back. Bark Bays. A Novel. By the author of "Called Back. Bark Bays. A Novel. By the author of "Called Back. Bark Bays. A Novel. By May Cecil Hay, author of "Bread-and. Cheest-and. Kisses," etc.

30. Lecoline. A Novel. By Mary Cecil Hay, author of "Bread-and. Cheest-and. Kisses," etc.

31. Gabriel's Marriage. A Novel. By Mikie Collins. author of "No Name," etc.

32. Reaping the W hirlwind. A Novel. By Mary. Cecil Hay, author of "Old Middleton's Money," etc.

33. Babley Carlenn. As Secret." etc.

34. A Golden Bawn. A Novel. By the author of "Dora Thorne," etc.

35. Valerie's Fate. A Novel. By Mrs. Alexander, author of "The Wooing Ott," etc.

36. Hay and the Carlenn. As Secret." etc.

37. Anne. A Novel. By Mrs. Henry Wood, author of "East Lynne." etc.

38. The Laurel Rush. A Novel. By Mrs. Alexander, author of "John Halifax, Genteman," etc.

38. The Laurel Rush. A Novel. By Mrs. Alexander of East Lynne." etc.

38. The Laurel Rush. A Novel. By Mrs. Alexander of Pacific Colorius and the such of the Carles by Mrs. Henry Wood, author of "East Lynne." etc.

38. The Laurel Rush. A Novel. By Mrs. Henry Wood, author of "East Lynne." etc.

39. The Laurel Rush. A Novel. By Mrs. Henry Wood, author of "East L

De Poe, describing the adventures of a castaway in the Seuth Pack Cock of Make Poultry Pay. A practical and instructive series of articles by Mr. P. H. Jacobs, Poultry Editor of "The Farm and Garden." Phila; fillustrated.
41. Parlor Magie and Chemical Experiments, a book which tells how to perform hundreds of amusing tricks in magic and instructive experiments with simple agents.
42. Gems of the Poets, containing charming selections from tennyson, Longfellow, Whitter, Byron, Sielley, Moore, Bryant, and many others.
43. Building Plans for Practical, Low-cost Houses. A full description and plans of Eight modern houses, ranging in price from \$500 is \$600. Hinartack.
44. Anecdotes of Public Men-Washington, Fully, Tidou, Lincola, Seott, Graut, Fack, Hinartack, Lee, and all the leading med. Of the equity and the leading med.

Century

**Msop's Fables. The work of an ancient genius
dren have read them for centuries, and grown people
e them every day.

ARE YOU GOING TO NEW ORLEANS OR FLORIDA?

If so, you can go via the Monon Route via Louisville or Cincinnati, and see the Mammoth Cave, Nashville, Blount Springs, Birmingham, Montgomery, Mobile, and the Gulf coast for the same money that will take you through the dreary, uninhabited Mississippi swamps; we are confident you cannot select a line to the South enjoying half the advantages that are posssessed by the Monon Route and its Southern connections.

No one should think of going South with

No one should think of going South without visiting the Mammoth Cave, the great natural wonder of this continent. So much has been written of this world-famous wonder, that it is impossible to say anything new in regard to it—it cannot be described; its caverns must be explored, its darkness felt, its beauties seen, to be appreciated or realized. It is the greatest natural curiosity—Niagara not excepted—and he whose expectations are not satisfied by its marvelous avenues, domes and starry grottos must either be a fool or a demi-god. From Mobile to New Orleans (141 miles) the ride along the Gulf coast is alone worth the entire cost of the whole trip. In full sight of the Gulf all the way, past Ocean Springs, Mississippi City, Pass Christian, Bay St. Louis, and Beauvoir, the home of Jeff Davis. When you decide to go South, make up

St.Louis, and Beauvoir, the home of Jeff Davis. When you decide to go South, make up your mind to travel over the line that passes through the best country, and gives you the best places to stop over. This is emphatically the Monon Route, in connection with the Louisville and Nashville and the Cincinnati Southern Railways, Pullman Palace Sleepers. Palace Coaches, double daily trains. The best to Cincinnati, Louisville, New Orleans or Florida, For full information, descriptive books, pamphlets, etc., address E. O. McCormick, Gen'l Northern Passenger Agent Monon Route, 73 Clark street, Chicago, or WM. S. BALDWIN, Gen'l Passenger Agent, 183 Dearborn Street, Chicago. born Street, Chicago.

GANZ & & CO.,

Budapest, Austria-Hungary.

We are the first introducers of the Chilled Iron Roliers for milling purposes, and hold Letters Patent for the United States of America. For full particulars address as above.

[Mention this paper when you write to us.]

JOSEPH DIXON CRUCIBLE CO.. Jersey City, N.J.

Manufacturers of



(View of Works.)

Pencils, Graphite Grease, Graphite Perfect Lubrica-tor, Belt Grease, Crucibles, Plumbago Facing, &c.

DIXON

GRAPHITED LUBRICATING

Pure Foliated American Graphite, SUSPENDED IN OIL,

For Close Fitting Axles and Heavy Machine Bearings.

Bearings will run easier and will not wear out. It will cool of a hot journal after every other oil has failed.

Write for Circular,

JOS. LINON CRUCIBLE CO., JERSEY CITY, N. J.

STATES U MILLER Milwaukee, tor one year and the to torty-hve following DOOKS

BRIEAN'S HOUSE PLANS

\$1.25 we w

EVERYONE IN CHARGE OF A BOILER SHOULD HAVE A COPY.

THE FIREMAN'S GUIDE.

A HANDBOOK ON

THE CARE OF BOILERS:

By Teknologforeningen T. I., Stockholm. Trans-lated from the Third Edition, and Revised BY KARL P. DAHLSTROM, M. E.

BY KARL P. DAHLSTROM, M. E.

The following are the titles of articles in this book:
After starting the Fire; Alarm Whistle; Arrangements for Ascertaining the Water-line; Best time to filow out; Blowing Out Partially; Blowing out Totally; Care of the Boiler when not in Use; Care of the Fire; Care of the Fire during short Stops in the Work; Causes of Foaming; Cleaning Out. Cleaning the Boiler; Cleaning the Grate-bars and Ash-pan; Decreasing the Draft, etc.; Defective Feeding Apparatus; Do not Stir the Fire; Dry Fuel; False Water-line; Feeding; Fire and Clean Out Rapidly; Firing into Two or more Furnaces; Formation of Scale; Fuel on the Grate; How to prevent Accidents; Loss of Heat; Low Water; Precautions before Starting a Fire; Precautions as to Closing the Dampers, etc.; Precautions when the Water is low; Precegutions on Drawing the Fire; Progress of Firing; Proper Firing; Refiling the Boiler; Regulating the Draft; Repairs; Safety Plug; Safety Valves; Smoke from the Chimney; Steam Pressure; Test in the Boiler; The Float; The Gauge Cocks and Glass Gauge; The Steam Gauge; The Water; The Water-line; To Examine the State of the Boiler; Trimming and Cleaning Outside.

Flexible cloth, price 50 cents, sent free by mail on receipt of price, or a copy of the United States Miller for one year and the book for \$1.25. Address all orders to E. HARRISON CAWKER,

PUBLISHER U. S. MILLER, Milwaukee, Wis.

Spon's * Mechanics' * Own * Book,

A MANUAL FOR HANDICRAFTSMEN AND AMATEURS.

Now Ready. Containing 702 pages, 8vo. cloth, with 1420 illustrations.

The title of this work almost suffices to indicate the character of the contents. The various mechanical trades that deal with the conversion of wood, metals and stone into useful objects are explained from an every-day practical view.

The method of treatment of each branch is scientific, yet simple. First in order comes the raw material worked upon, its characters, variations and suitability. Then the tools used in working up the material worked upon, its characters, variations and suitability. Then the tools used in working up the metality. Then the tools used in working up the means for keeping them in order, by grinding, setting, handling and cleaning. A third section, where necessary, is devoted to explaining and illustrating typical examples of the work to be executed in the particular material under notice. Thus the book forms a complete guide to all the ordinary mechanical operations; and whilst professional workmen will find in it many suggestions as to the direction in which improvements should be aimed at, amateur readers will be glad to avail themselves of the simple directions and ingenious devices by which they can in a great degree overcome the disadvantage of a lack of manipulative skill. Price \$2.50 postpaid. Address

E. HARRISON CAWKER,

PUBLISHER U. S. MILLER, Milwaukee, Wis.

HASWELL'S

Engineers' Pocket Book.

NEW EDITION.

Enlarged and Entirely Re-written.

From New Electrotype Plates.

Mechanics' and Engineers Pocket-Book of Tables, Rules, and Formulas, pertaining to Mechanics, Mathematics and Physics, including Areas, Squares, Cubes, and Roots, etc.; Logarithms, Steam and the Steam Engine, Naval Architecture, Masonry, Steam Vessels, Mills, etc.; Limes, Mortars, Coments, etc.; Orthography of Technical Words and Terms, etc., etc.; FORTY-FIFTH EDITION, Revised and Enlarged. By Charles H. Haswell, Civil, Marine and Mechanical Engineer, Member of Am. Soc. of Civil Engineers, Engineers' Club of Philadelphia, N. Y. Academy of Eciences, Institution of Naval Architects, England, etc. 12mo, Leather, Pocket-Book Form, \$4.00.

"I cannot find words to express my admiration of the skill and industry displayed in producing the same. To you belongs the honor of having presented to the world a book containing more POSITIVE information than was ever before published. I could with justice say more."—Extract from a Letter to the Author from Capt. John Ericsson, the celebrated Engineer.

Engineer.

The above work sent by mail, postage prepaid, to any part of the United States or Canada, on receipt of the pric.

Address E. HARIKISON CAWKER, Publisher of the UNITED STATES MILLER. No. 124 Grand Av., Milwaukee, Wis.

OGILVIE'S HANDY BOOK

OF USEFUL INFORMATION,

and Statistical Tables of Practical Value for Mechanics, Merchants, Editors, Lawyers, Printers, Doctors, Farmers, Lumbermen, Bankers, Bookkeepers, Politicians, and all classes of workers in every department of human effort, and containing a compilation of facts for reference on various subjects, being an epitome of matters Historcal, Statistical, Biographical, Political, Geographical, and of General Interest, No more valuable book has ever been offered containing so much information of practical value in American Geographical Names, with their Derivation and signification; Abbreviations in Common Use and their Signification; American History, Chronological Table of: Alphabet, Deaf and Dimbi: Area, Population, and Debts of Priadual of the World; Animals, Powers of Locometion of: Alcohol, Percentage of in various Liquors; Animals, Caparion of Life of, Biographical Register; Business Vocabulary; Beaf and Timer Measure; Brass, Weight of; Brokers' Area; Copper, Weight of; Colons of United States, Weight of; Distances to Various Parts of the World; Food, Warmth and Area; Copper, Weight of; Colons of United States, Weight of; Distances to Various Parts of the World; Food, Warmth and Area; Legal, in United States; Information for Business Men; Interest Tables; Iron Cast, Tables of; Iron Blate, Tables of; Loga Reduced to Hoard Measure; Lead Pipe, Sizes and Weights; Lengths, Scripture, Measure of; Moulders' Table; Medical Department; Mythological Dictionary; Musical Terms, Dictionary of; Capacity of; Names Popularly Given to States, Cities, etc.; Population of Principal Cities in the United States; President of; Parliamentary Ruies and Usages; Paper, Sizec, Nautical Vocabulary; Ocean, Area of; Punctuation, Marka and Gonducting Power of; Snow, Perpetual Limit of; Tables for Business of; Rivers, Lengths of; Ready Reckoneri Spelling, Simple Rules for; Seas of the World; Screws, Thread; Steel, Tables of; Substances, Various, Expansion, Heat, Head Conducting Power of; Snow, Perpetual Limit of; Tables of Weights and Measures;

MOORE'S UNIVERSAL ASSISTANT

MOORE'S UNIVERSAL ASSISTANT

and Complete' Mechanic;

contains' 1016 Pages, 500 Engravings, and

ever 1.000.000 Industrial Facts, Calculations, Receipts, Processes, Trade Secrets'

&c., in every business;

for sterling Value, Elegance, and Low Cost, this Work has no Comb

poer in the English Language, What Others Say:—"A regular

converse of universal Engance, and Low Cost, this Work has no Comb

poer in the English Language, What Others Say:—"A regular

converse of universal Engance, and Low Cost, this Work has no Comb

poer in the English Language, What Others Say:—"A regular

converse of universal Engance, and Low Cost, this Work has no Comb

poer in the English Language, What Others Say:—"A regular

converse of the Say of the Complete of the Say of the S

A BOOK YOU WANT!

The Science of a New Life.

BY JOHN COWAN, M. D.

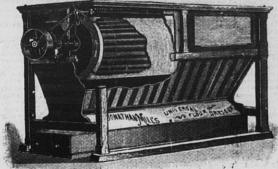
A graduate of one of the oldest chartered Colleges in America, viz: The College of Physicians and Surgeons of New York City.

The ancients were ever longing and searching for an Ellzir Vilæ—the Water of Life—a draft which would enable you to live forever. "The Science of Life" will unfold to you a better elixir than the ancients ever dreamed of in their wildest flights of imagination; for, although it will not enable you to live forever, yet its pages contain information that, if heeded and obeyed, will endow you with such a measure of health, strength, purity of body and mind, and intense happiness, as to make you the envied of mankind—a MAN among men, a woman among women.

Men of influence, position, of high attended with the world the world as ministers, authors, physicians, etc., certainly would not so warmly endorse "The Science of A New Life" as they have done if it were not of sterling merit. Besides the names here given, of such as have so commended the work, the publishers have letters from other eminy endorse "The Science of A New Life" as they have work, the publishers have letters from other eminy endorse "The Science of A New Life" as they have work, the publishers have letters from other eminy endorse "The Science, forwant of space, we cannot publish. Trancis E. Abbott, Editor "Index", Boston, Rev. Thase, for want of space, we cannot publish. "The Jaily Graphic," New York; "Jennie June" Croly, Ed. Demorest's Mag.", New York; Rov. W. T. Clarke, "Christian Leader", New York; "Jennie June" Croly, Ed. Demorest's Mag.", New York; Rov. W. T. Clarke, "Christian Age", Church of the Strangers; Judge J. W. Edmonds, New York; Rev. O. B. Frothingham, New York; Rev. Francis Inana Gage, New York; Wm. Libyd Gaulson, Stewnon, Mass.; Mrs. Clemence S. Lozier, M. D., Dean of the Medical College for women; Gerald Massas, Boston, Mass.; Mrs. Clemence S. Lozier, Parton, New York; J. M. Peebles, Excl. S. Consul; Wendell Philips, Boston, Mass.; Parker Pilisbury; Rev. T. De Witt Talmage, Ed. "Christian at Work"; Theodore Tilton; Moseo Colt Tyler; Mrs. Caroline M. Sever-Boston, Mass.

"In a careful examination of Dr. Cowan's "Science of A New Lif

FLOUR DRESSER



For Prices and List of References send to

Guaranteed and Proven in hundreds of instance to be Superior to any other Bolting Device

Clear, Clean Bolting or Ro-Bolting of all Grades of Flour,

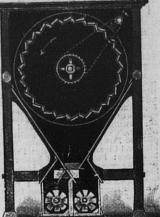
AND IS THE FAVORITE WHEREVER TRIED.

They cannot be beaten on any stock. They are the Champion All-around Bolters of the World, and are being extensively adopted for the Entire Bolting in New Mills.

The Universal Praise bestowed on the Reels wherever they are used, is Conclusive Evidence of their Superiority.

Pinely Designed and Mechanically Constructed. Slow Speed

Occupies Small Space, and has Immense Capacity



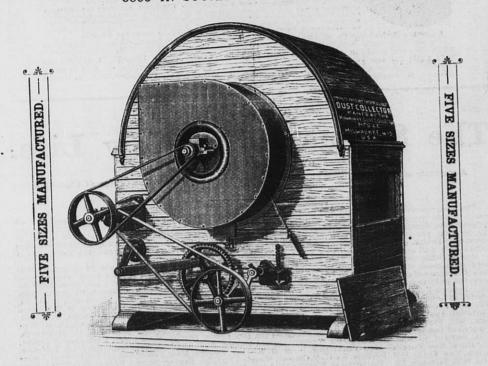
INE CO., CLEVELAND, O.

(Formerly THE CUMMER ENGINE CO.)

IMPROVED (

PRINZ PATENT DUST COLLECTOR.

6000 IN SUCCESSFUL OPERATION.



-ADDRESS FOR-

"Treatise on Dust Collection," containing 50 pages of testimonials,

Dust Gollector Mfg. Go.,

MILWAUKEE, WIS.

TYPE SETTING

Goods SELL everywhere, to Everybody.
BIG PAY! A pocket case of EIGHT Lovely
SAMPLES, with our terms, FREE TO ALL.
Sendyour address, and 2 stamps for mailing. Address
THE HOLLEY WORKS, Meriden; Conn.

10,000 acres of Hardwood and Agricultural Lands near Lake Superior, AT \$3.00 TO \$5.00 PER ACRE. 4,000 acres in the Iron River Country, at low rates.

A RARE OPPORTUNITY FOR A GOOD FIND.

IF YOU WISH TO BUY

CITY PROPERTY IN DULUTH, OR PINE, IRON OR FARM-ING LANDS,

-(ADDRESS)-

LUCIEN * J. * BARNES,

Room No. 2, Exchange Building.

TONE

VILLABE OF DELAFIELD, WAUKESHA Co., WIS.

Water Power, unfailing. All in A 1 condition for business. Also two good Residences with Barn and Out-buildings. A bargain for the right man. Address,

M. H. BUCK, WAUSAU, WIS.